

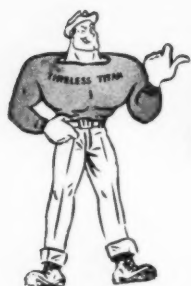
American

FORESTS

JULY 1951

50 CENTS





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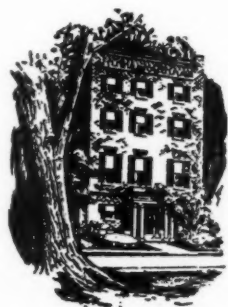
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JULY, 1951
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NUMBER 7



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The American Forestry Association, publishers of *American Forests*, is a national organization—independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

American FORESTS

PUBLISHED BY THE AMERICAN FORESTRY ASSOCIATION

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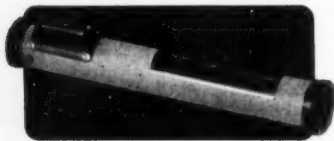
If it weren't for the thousands of American elms surrounding historical shrines in and around the nation's capital, visitors and residents alike would find Washington, D. C. a vastly less attractive city. Yet more than 150 of these graceful trees have fallen prey since 1947 to the deadly Dutch elm disease. For this month's cover, Abbie Rowe of the National Park Service pointed his camera toward Jefferson Memorial to frame in the foreground a recent tree victim. For the latest report on what's being done to check this and another tree despoiler, read On the Oak Wilt and Dutch Elm (page 11).



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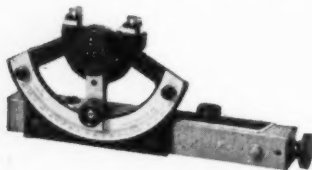


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American FORESTS Forum

Looking Ahead—At the risk of appearing to brag, we think you'll find the forthcoming August issue especially interesting—both informative and entertaining. You won't want to miss the searching reevaluation of the much-in-the-news O and C lands situation by **John B. Woods**, nationally known forester who directed The American Forestry Association's Forest Resource Appraisal. From the same Pacific Northwest country comes also a report on the tenth anniversary of the Tree Farm movement, by William B. Greeley who recently authored the much discussed book, *Forests and Men*.

For enjoyable fiction, you'll find **Harry Botsford's** *Man on the Moose* the best ever found in these pages. In the problem and how-to-do categories there'll be articles on poison ivy, "rain" from tulip poplars and the Dutch oven, to name a few.

In This Issue—Like everything else in Texas, land and forest development is on the grand scale. And huge even by Texas standards is the Southwestern Settlement and Development Corporation whose history is told by AFA Executive Director **S. L. Frost** in *Southwestern's Forest Empire* (page 6). As the nation's No. 1 nonindustrial tree farm, Southwestern makes a fitting subject for an article dealing largely with improved forestry methods and how their application is assuring maximum production from the land. The company's growth is traced from the toddler stage to its present status as a business giant and stress is placed on its import to the people of southeast Texas. The author personally toured these holdings, lending authenticity to the article.

Fresh discoveries of both oak wilt and Dutch elm diseases in hitherto unblemished areas during the past year, counteracted by evidence of an intensified program of survey and research, plus an increasingly active campaign to delay these spreading ravages, are featured in *On the Oak Wilt and Dutch Elm* (page 11). *American Forests* Editor **Nort Baser** traded his blue pencil for a type-writer to tell how the battle goes

against this pair of death-dealing fungi.

Apparently unabashed by Emily Post's reputation, **Robert H. Emerick** dares to invade the domain of that great lady in *How to Meet a Snake* (page 12) and writes about, of all things, etiquette. While posing as no arbiter of social manners, his suggested protocol for the outdoorsman is worthy of close reading. His advice on meeting a snake is, "Don't if you can help it." If an encounter is unavoidable he tells us how, when and what to do. A noted mechanical engineer writer from Charleston, South Carolina, he calls himself a "backyard naturalist."

Many is the married man who will chuckle at well-known author **Edmund Ware's** *Men, Women and Wilderness* (page 14), an excellently-written bit of fiction about a north woods guide who thought woman's place was in the home—somebody else's. What happened to this confirmed bachelor is . . . well, we'd better not say too much. The story has a surprise ending. We thought it worthy of obtaining reprint rights from *Lincoln-Mercury Times*.

Fred O. Bailey, executive secretary of National Agriculture Research, Inc., takes *A Closer Look at Agriculture's Reorganization* (page 18) in an objective appraisal of controversial Memorandum No. 1278. The article's clarity of presentation is a refreshing change from the order itself. There's also an editorial on the subject.

Another "how" article of special interest to the outdoorsman is *The Light Truck of the Adirondacks* (page 20), in which **Roland B. Miller** reviews the history of this famous guide boat and gives a detailed explanation of how one is made. More than a full page of pictures illustrates the article. The author is managing editor of the *New York State Conservationist* magazine and has contributed to these pages on previous occasions.

How far-seeing National Parks authorities have kept a fine game fish from suffering the same fate of near extinction as the Montana grayling

(Turn to page 5)

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WASHINGTON LOOKOUT

By G. H. COLLINGWOOD

Discussion rather than decision has characterized most of the activities of the 82nd Congress. No major legislation of special interest to forestry and conservation has been enacted, but patterns are being set. Most apparent of these are the appropriation bills for the Departments of the Interior and Agriculture. They carry the keys to what legislation already has been enacted and point the way to what is to come. Following close in importance are the proposals for timber access roads, an adjusted plan for allocating the receipts from the O and C lands, consideration of the proposals of the Hoover Commission for consolidating the administration of the publicly owned lands, and legislation to effectuate the recommendations of the President's Water Resources Policy Commission.

Enactment of the appropriation bills is subject to the greatest pressure, for unless they are approved by June 30, special provision must be made to keep the wheels of government in motion. Experience has proven that such can be done, and this perhaps dulls any feeling of apprehension on the part of administrators and even the many who are dependent upon them for their salary. Nevertheless, until the bills are signed by the President, no assurance can be given beyond continuation of routine affairs, and new activities must await specific Congressional authority.

As this goes to press, the Interior Department bill is being "marked up" after hearings which were completed by the committee on June 6. If, as you read this, it was brought on the floor of the Senate during the week of June 17, the bill had a chance of being completed for the President's signature by the end of the month. The Agriculture Appropriation bill is in a less favorable position for its hearings have not been scheduled.

Some small satisfaction can be taken in the Third Supplementary Appropriation bill, which the President signed on June 2. Included in this bill, which makes appropriations to meet requirements for the balance of the fiscal year ending June 30, 1951, are \$2,500,000 for construction of national forest development roads and trails, and \$800,000 for repair of

damage done to forest roads by last spring's floods in Oregon, California and Nevada. This sum was a severe cut below the \$5,800,000 proposed by the Senate.

On May 15 Secretary Oscar L. Chapman of the Department of the Interior approved a tentative agreement between officials of the Bureau of Land Management and the Fischer Lumber Company, of Marcola, Oregon, which opens the use of company constructed roads over O and C lands and intermingled privately owned lands to all purchasers of government timber. The agreement provides that such purchasers will pay reasonable charges for the use of roads built and paid for by private operators. Another feature of the agreement is a ten-year forestry plan which looks toward management of the forests in perpetuity and for their maximum use.

Included is assurance of competitive bidding for government owned timber, acceptance by the company of forest management practices, guidance by O and C foresters in the location of cutting areas, and the application of fire prevention measures and utilization standards. This decision to charge for the use of roads constructed with private capital and hold the funds to reimburse the builder promises to be far reaching.

A new access road bill introduced by Representative T. G. Abernathy, of Mississippi, may solve the current inability of the administrators of national forests, O and C lands, and Indian Reservations to provide means of access to nearly three billion board feet of government timber a year on a sustained yield basis, and to that extent help meet the present national defense emergency. The new draft is H. J. Res. 263. Having been introduced by the chairman of the subcommittee which conducted hearings on its predecessors last March, it may be considered as having the prestige of a committee bill.

The controversial section providing for "advisory public hearings on access road construction and reconstruction programs" has been displaced by new wording which meets the approval of all interested agen-

cies. As expressed by Assistant U. S. Chief Forester C. M. Granger, it "would get away from the burdensome and time-consuming process of having separate hearings on every road which, particularly at a time when road construction should be expedited, would be quite adverse to the public interest."

The bill permits the owners of intervening private lands, or the purchaser of government timber, to share the cost of constructing and maintaining the roads. In other cases, the administrative agency may exact charges for hauling logs cut from intervening private lands.

Like its predecessors, the bill would authorize appropriations over a period of four years to total \$120,000,000, of which \$100,000,000 would be allotted to the national forests, and \$20,000,000 to the forests administered by the Department of the Interior. Testimony submitted during the hearings of last March revealed that this investment, as applied to all government lands, can be expected to result in the construction of some 6250 miles of road, and the sale of government timber which would return to the federal treasury more than \$25,000,000 a year, according to 1950 prices.

The possibility that four annual investments of \$30,000,000 totaling \$120,000,000 would augment the defense effort by nearly three billion board feet a year, and the assertion by government officials that for all practical purposes that amount of timber is now going to waste for lack of a market may assure enactment of the bill by the Congress.

The prospect that the end of this fiscal year will record full payment of the \$10,472,893.38 which stood as a deficit against the O and C funds when Congress passed the act of August 28, 1937 has drawn public attention to the provision whereby the counties may soon get the 25 percent of gross receipts from timber sales which have been paid to wipe out the delinquent tax claims. This would be in addition to the 50 percent of gross receipts from the forests on the lands, which the law specifies shall go to the counties in lieu of current taxes. To correct this, Senator Guy Cordon and Representative Harris Ellsworth, both of Oregon, have introduced S. 1385 and H. R. 4005 to amend the act so that when the United States Treasury has been fully reimbursed, this 25 percent fund will be converted annually into the Treasury as miscellaneous receipts.

Reorganization of the Department of Agriculture as proposed by the Hoover Commission, and particularly that portion pertaining to the possible consolidation into one department of all the government's public land responsibilities, may get a public hearing before the Senate Committee on Expenditures in Executive Departments in July. The bill under consideration will be a redraft of S. 1149 as introduced by Senator George D. Aiken, of Vermont, and others. Included in this bill is the proposal that the functions of the Bureau of Land Management, with the exception of those dealing with mining and mineral resources, be transferred from the Department of the Interior to the Department of Agriculture, and there grouped with the Forest Service and the Soil Conservation Service in an Agricultural Resources Conservation Service.

The three volume report and recommendations of the President's Water Resources Policy Commission were recently considered by the Subcommittee on Irrigation, of the House Committee on Interior and Insular Affairs, under the chairmanship of Representative Clair Engle, of California. The hearings brought out a letter from Director E. J. Lawton, of the Bureau of the Budget revealing the appointment of inter-departmental task forces to consider in detail the appointment of inter-department of the Commission, and to draft legislation or executive orders for presentation to the President. No indication was given as to when these may be expected.

Forum

(From page 2)

(discussed in the June issue) is explained in *Cutthroat Trout of the Yellowstone* (page 22) by **Claude M. Kreider**, Long Beach, California, an outdoor writer whose byline is familiar to many readers of *American Forests*. Thanks to an intelligent restocking program, he writes, this magnificent wilderness today abounds with as many colorful cutthroats as it did in the days of Lewis and Clark.

James Stevens lends his deft touch to another Davy Crockett legend in *Davy and the Rolling Reptile* (page 17). There's also Part IV of the Association's *Report on American Big Trees* (page 28) and for up-to-the-minute news on legislative activities there's **G. H. Collingwood's** *Washington Lookout*. In *AFA Sponsors New Type Smoky Trail Trip* you'll find the perfect suggestion for a Fall vacation.



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A gigantic enterprise, even by Texas standards, this 700,000-acre tract thrives as America's No. 1 nonindustrial tree farm

Southwestern's F

ABOVE the gulf coast of southeast Texas where the southern pine belt's sweeping crescent fades out into the arid, wind-swept prairies stands one of America's greatest private forest empires. Here flourish the vast holdings of Southwestern Settlement and Development Corporation—a monument in wood to the success of perpetual timber production.

So expansive are these holdings that one could almost fit the whole of Rhode Island into them. A community of 4000 average homes could be built each year from their fast-growing timber yield. To walk, or even to ride a Texas cow pony around the perimeter of this far-flung development would tax the endurance

of the most rugged native. Counting the number of trees would be an almost endless task.

Nearly 700,000 acres of trees thrive on this, America's No. 1 non-industrial tree farm. As a property under unified management it is probably exceeded in land area in the Lone Star state only by the world famous King Ranch. This huge Texas timber enterprise has been certified as one of 3000 private properties registered under the Tree Farm system, a program sponsored by the American Forest Products Industries organization. Along with such forest industrial giants as Dierks Coal and Lumber Company, International Paper, and Weyerhaeuser Timber Company, Southwestern stands among the

Prime stands of timber like this natural reproduction longleaf pine are characteristic of Southwestern's program of perpetual production



Forest Empire

By S. L. FROST



R. F. Evans, left, vice president, and Buford Brown, ranch foreman

top ten private forest holdings in the United States. Unlike these other timber titans, however, Southwestern operates no industrial plants of its own.

That is what makes the story so amazing. Southwestern is strictly a timber grower. As such, its expansive operations have tremendous economic influence in a large portion of southeast Texas. Land and timber policies of the company directly or indirectly affect tens of thousands of persons in 12 counties to the north of vital industrial centers like Houston and Beaumont. Its tax dollars are the life blood of many schools, road systems and communities. Twelve sawmills depend on Southwestern for sawtimber. It supplies pulpwood to one big paper mill, poles and piling to several companies, stumpwood to one company. It's also in the cattle business and leases some of its land to local farmers. Sand, gravel and Fuller's earth are among the commodities it markets. And, as the title suggests, Southwestern buys and sells land on a large scale. But timber is the primary product and it is pro-

gressively assuming even greater significance. This progress was assured in 1942 when company officials drafted a long-range timber management plan designed to double its present growth of 60 million board feet a year.

The birth of this forest empire and how it was nurtured to its present great stature by a beneficent Mother Nature and shrewd company management is a unique story. W. E. Merrem, modest, soft spoken vice president and general manager of Southwestern, explains it simply and literally. He says his firm "grew" into the forestry business.

The story began back in 1901 with the organization of the Houston Oil Company as a Texas corporation. Through the consolidation and merger of 14 timber or sawmilling companies, that parent organization acquired approximately 850,000 acres of pine and hardwood timberlands in the southeastern part of the state

from Kirby Lumber Company. The Kirby concern retained a 20-year cutting contract on all timber 12 inches and larger in diameter at the stump.

Fifteen years later a further division was made and Southwestern Settlement and Development Company was created as a trust estate to take over and administer all the land and surface resources. In 1933, under a further refinement, Southwestern became a corporation and acquired title to the lands it had held in trust. Houston Oil retained all the mineral and oil rights. Kirby Lumber still held the original timber contracts. So Southwestern actually had little in the way of timber that was not tied up in contracts. It wasn't until 1947 that the last of these contracts expired and Southwestern finally was on its own.

The original dream of the business leaders associated with Kirby and subsidiaries was to develop this southeast Texas section as an agricul-

W. E. Merrem, vice president and general manager, explains that his firm literally "grew" into the forestry business





Southwestern runs more than 1000 head of beef cattle on a 20,000-acre tract

tural bonanza. As Kirby cut the timber, Southwestern was to subdivide and sell the land for farms. Southwestern became essentially a huge real estate operation and glowing was its early promotional literature with the promises of fields of corn, row crops, fecund orchards and prosperous new farms and ranches.

The promoters spent considerable sums on test orchards and farming plots. They worked with the honest conviction that this vast stumpland wilderness could be transformed into a completely new agricultural economy. In some places—where soil

types were conducive to general farming—they succeeded, but for the most part the venture failed and the land boom fizzled out. These pioneer promoters had failed to reckon with the unsuitability of the sandy soils for crop culture, or with the determination of the hardy southern pines to succeed themselves.

So, despite the ravages of uncontrolled wildfire, and despite the early cutting methods which often devastated huge chunks of forest land, Southwestern's stumpland began to take on the first new blush of forest green. New tree growth, nature's

own design for protection, came from scattered, crooked, seed trees which were too poor in quality for the logger's ax. The prolific scrub pines showed hundreds of thousands of fertile seeds from their scraggly crowns.

It wasn't until the late '30s, however, that the idea of forest growth gradually became apparent to Southwestern. The owners had tried to continue the ill-fated land promotion scheme, but the depression years and a low timber cut finally made necessary an extension of some of the timber contracts with Kirby. There was

Chief Forester Richard M. Townsend inspects a thriving crop of seedling pines



a startling difference in the early estimate and the one made at the time of renegotiation. That difference was the amount of timber that had accumulated during the intervening years.

This started a study of growth rings on recently-cut stumps. The findings lay in those golden bands of new growth, ring after ring, year after year. New growth by the thousands of board feet was being added. Some intensive figuring by company officials converted this new growth into potential dollars and showed that their forest holdings could add income at a rate of between six and ten percent a year!

With that indication of a veritable gold mine, Southwestern in 1939 started a survey of its timber holdings. The study, completed two years later, showed that most of the conservation lands were fairly well stocked with trees and that much of the timber was of marketable size. The next year Southwestern discarded its old land development policy and set up a long-range forestry plan emphasizing the growing of timber as a business investment.

Today, Southwestern aims at full-capacity production for every acre of its lands. Foresters estimate the annual growth at about 60 million board feet a year. The annual yield, however, averages only between 30 and 40 million board feet. By most standards this is a conservative timber cut, since most good forestry operations cut about the same amount as is grown. But Southwestern is looking to the future and is willing to sacrifice some of the immediate profits in order to build up the volume of timber.

All of its sawtimber sales are based on cutting no trees smaller than 14 inches in diameter at breast height. Southwestern produces about 12,000 cords of pulpwood a year for a nearby paper mill. One forester guides this operation and marks all the trees to be cut. The annual growth and improved operations now planned will yield a much larger pulpwood potential, probably ten times the present. Poles and piling, about 100,000 of them a year, make up the real "cream" of Southwestern's timber dollars. One tract of pine yielded quality piling worth \$15 apiece. It is not uncommon to see pole after pole on the railroad sidings worth \$7 to \$8.50 each. J. Webb Pedigo is in charge of Southwestern's timber department. Richard M. Townsend is chief forester.

In addition to its income from

growing timber, the company is now adding extra dollars from the old stumps of its original forest. Rich in turpentine and resin they have resisted decay. To utilize these valuable materials a Louisiana concern blasts and bulldozes them from the soil. They are in turn converted into 21 by-products. The stumps currently are selling at 60 cents a ton, with the yield from an average acre between two and six tons.

To date, Southwestern has done only a limited amount of tree planting on its more barren acres. About half a million seedlings are planted a year. The company hopes that most of its land will reforest naturally. Natural reseeding is more probable now that protection from fire is being provided. On some of its longleaf pine lands, the company plans to use controlled burning in certain good seed years to expose the soil and to control a blight disease which attacks the needles and stunts the growth of young longleaf seedlings.

Most of the company's reforestation plans and newer timber handling policies are awaiting complete development until a recently-inaugurated aerial photographic survey of all its holdings is completed. From this survey, Southwestern will obtain detailed data on its lands, including amount, kinds and growth of timber, land needing planting, and other information pertaining to future operations. The initial cost will be upwards of \$40,000, but Merrem figures the outlay as a profitable long-range investment.

In an effort to make every acre produce at its maximum capacity, Southwestern has within the past few years gone into the sideline business of ranching. Its idea is to raise beef cattle on some of its sparsely clad lands until a new crop of trees is established. Under the guidance of Vice President R. F. Evans, the company is running a 1000-head herd on a 20,000-acre tract, heart of which is a 500-acre improved pasture.

This pasture was literally gouged free of stumps, then plowed, disced, harrowed, fertilized, seeded and fenced at a cost of \$75 an acre. It is the focal point for Southwestern's ranch headquarters and all its cattle operations. Mr. Evans is using a mixture of carpet, Bermuda, Dallis, common and Kobe lespediza, white Dutch, Persian and crimson clover and fescue 31 grasses. This year the area yielded 10,000 bales of hay valued at \$1.25 a bale. The hay is used for winter feeding and for seeding new



Chief Forester Townsend looks over section yielding top poles, piling



Hardwood logs cut along the river bottoms are of choice quality

grass areas in the 20,000-acre tract.

The extensive range area was completely fenced at a cost of slightly less than \$1.50 an acre. The inside boundary is surrounded with a 30-foot grassed firebreak. Twelve feet wide interior fire lanes break the pasture land up into a dozen sections. All of the lanes have been graded and sown to mixture of Bermuda, carpet, Dallis and fescue grasses. Some clover has been added to provide a year-long green strip, effective as protection against fire and extremely easy and economical to maintain.

The company's cattle are a specially bred mixed stock—three-eighths cross-blooded Brahmas with common Shorthorn stock. The animal is long-legged, thrifty, a good hustler and is immune to most insects and diseases common in the hot, humid summers of southeast Texas.

The trees and cattle seem to be getting along well together. If the experiment proves a financial success, Mr. Evans is looking to the day when the company may have as many as 5000 head of cattle on 100,000 acres.

Now that Southwestern has junked its old policy on land sales, people

are wondering what the effect will be on the normal expansion of certain communities in that area. With the company owning all the land around many communities, a restrictive policy of land sales could very well freeze any town expansion. Recognizing this social problem, the company permits sales on a conservative basis. This is part of a splendid community service program of Southwestern which promotes good will and receives the cooperation of thousands of local residents.

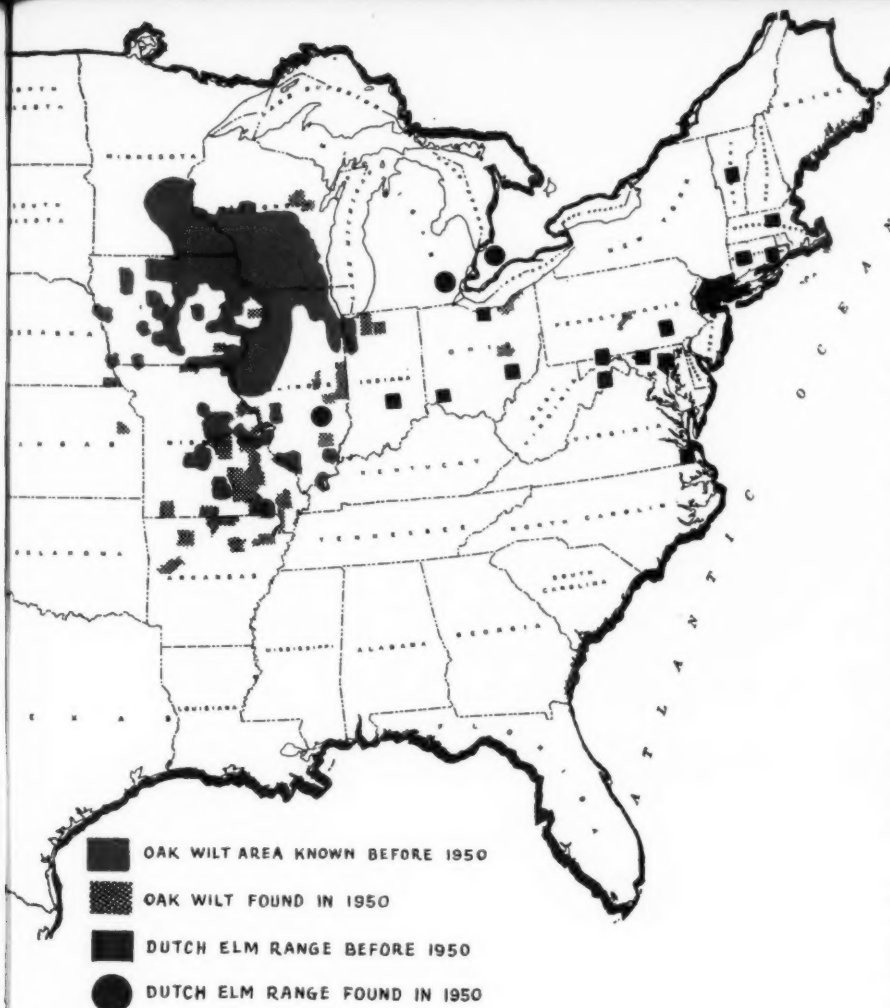
The company keeps its river and stream fronts open to the public for hunting and fishing and provides land recreation areas for school and civic organization camps. It will not sell land along the water courses to any private club, when such a sale would mean the exclusion of the public from the area.

Southwestern donates the right of way for any needed public road and the gravel for use on county-administered roads. It donates land for school locations, cemeteries and churches.

These policies, the policies of the timber plan and its ranching experiment are concrete proof that Southwestern Settlement and Development Corporation has finally found the north star. In business to stay, administering its forests as a sound business investment, Southwestern records another triumph for the American enterprise system. And here, too, is another triumph for land use and conservation. For Southwestern's far-flung, fast-growing forests spell increasing prosperity for a wide section of southeast Texas.

The Newton County Lumber Co. is one of many mills supported by Southwestern forests





Offsetting alarming new discoveries during the past year of these dread tree diseases is news of an intensified program of survey and research

old, as in the case of Mifflin County, Pennsylvania and some Arkansas localities.

On the "Dutch elm" front, infected trees have been reported for the first time in Michigan (in the vicinity of Detroit), across the Canadian border around Windsor, and at one place in east central Illinois. The previous range had been confined to Ohio, Indiana, Pennsylvania, West Virginia, Virginia, Maryland, New Jersey, New York, Connecticut, Rhode Island, Massachusetts and Vermont.

While the general public has been fully alerted to the dangers of that alien invader, Dutch elm disease since at least the mid-'30's, it wasn't until early 1950 that oak wilt became a household scare word, thanks to somewhat colored and exaggerated newspaper and radio reports.

Possibly the ominous tenor of these stories, coupled with the economic importance of oak to many hardwood lumber manufacturers, has served, however, to hasten the forming of battle lines to combat the disease. By mid-1950 industry had formed a National Oak Wilt Research Committee chairmanned by Leonard R. Steidel, cooperation manager of the National Distillers Products Corporation, Memphis, Tennessee. Henry H. Willins, secretary of the National Oak Flooring Manufacturers Association, serves as secretary.

Determined to do a thorough job, industry's committee requested the help of a technical advisory committee recruited from the nation's leading plant pathologists. Chairman of the latter group is Dr. A. J. Riker, University of Wisconsin plant pathologist who in 1942 pioneered in discovery of the causal fungus and since has discovered one method of spread through natural root grafts.

Others on the technical advisory committee include Dr. Curtis May, senior forest pathologist with the Bureau of Plant Industry, USDA, at Beltsville, Maryland; W. H. Bragonier of Iowa, C. M. Tucker of the University of Missouri; L. E. Tehon and H. B. Mills of the Illinois Natural History Survey at Urbana; and

(Turn to page 40)

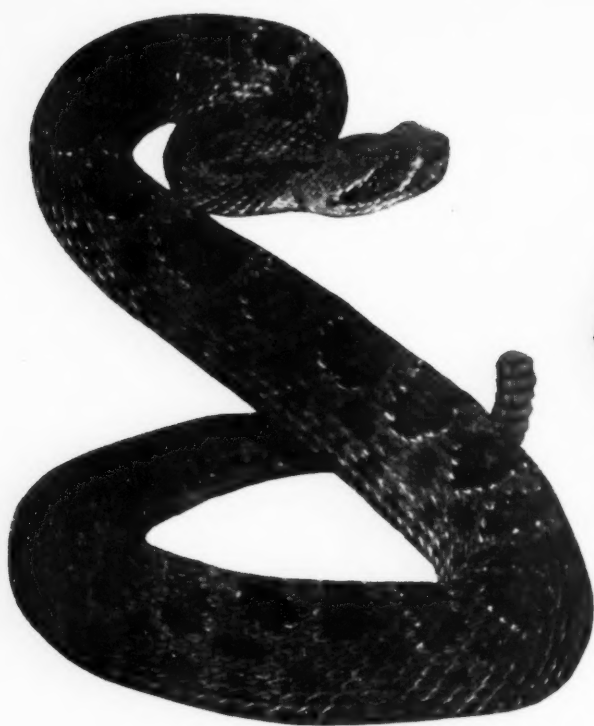
On the OAKWILT and DUTCH ELM

By NORT BASER

FRESH discoveries of both oak wilt and Dutch elm—diseases caused by differing but nonetheless death dealing fungi which prey on two of America's most beloved and important tree species—were reported in hitherto unblemished areas during the past year. Counteracting this disturbing news, however, is evidence of an intensified program of survey and research, accompanied by an increasingly active campaign to delay these spreading ravages.

Specifically, incidence of oak wilt

has been verified during the past year in Ohio, Arkansas, Nebraska, Kansas and a number of additional counties in southern Missouri. The same *Chalara quercina* fungus was also found in a Missouri plantation of Asiatic or Chinese chestnuts—all this in addition to the previously known infestations in Minnesota, Wisconsin, Iowa, Illinois, Indiana and Missouri. Many of the newly reported areas, however, were found to be previously undiscovered infestations of earlier origin—three, four or more years



How to Meet a Snake

By ROBERT H. EMERICK

He isn't a very sociable character, so avoid him if you can. If you can't, be prepared for danger

SINCE neither Emily Post nor Dale Carnegie has issued any protocol to be observed when meeting a wild snake unexpectedly, it is lucky we have the experiences of less important, but more talkative, persons to guide us. Take the case of my friend, Arthur, for instance; that is you take it, it's too scary for me.

It seems Arthur was fishing for bass in a Southern river and was wading in water up to his waist, which he says is a pleasant pastime in Southern rivers, and right out of nowhere a water moccasin appeared, swimming toward him. Everybody in the South knows that moccasins are lazy and non-aggressive, except the moccasins themselves, and no matter how loudly Arthur yelled, nor how vigorously he slapped the water, the moccasin kept right on coming. This goes to show you that moccasins don't care what anybody thinks about them.

When all this racket failed to make friends with, or influence the snake, Arthur tried to contract himself into something so tiny that the moccasin would say, "Heck! It's nothing but a speck on the water," and then go

away. The trouble with this idea was that there is too much of Arthur to become so small, and anyway the fish he had tied to his belt, and which represented his whole morning's catch, was kicking up a lot of disturbance for a speck. Apparently this fish could see trouble ahead, too.

Somebody on the bank yelled:

"Throw him a fish, Arthur. He wants the fish."

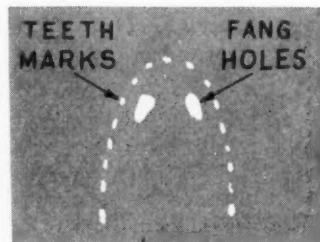
While Arthur obediently was trying to untie the fish, and wondering how he ever had made such a complicated knot, the moccasin arrived, and dived. Arthur could feel the flip of the thick body against his legs as the snake went right between them. He felt wet with sweat, and he got out of that river as fast as he could. He knew as well as the next one that moccasins can bite under water, and he was lucky to be getting out.

Obviously this is no way in which to meet a snake. In words of one syllable, wade if you must, but don't hitch your fish to your belt.

Some people asked Arthur how he knew it was a deadly moccasin, and not just any old water snake.

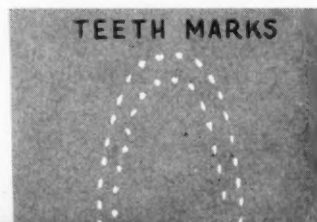
"He opened his big mouth," said Arthur. "And it was stuffed with cotton. That's enough for me."

It's enough for me, too. Still, there is another way to tell poisonous snakes and we should know it, because all of them are not cotton-mouthed moccasins. Just look any snake in the eye, and if the pupil is a mere vertical slit, then the owner



Two fang holes mean poison

Nonpoisonous teeth pattern



of the eye carries a couple of hypodermic teeth in his head, and he won't mind in the least giving us a shot in the leg, or arm, or any place convenient. In fact, he can shoot three of us in a row before his hypodermic runs dry.

Most meetings occur as a result of our coming onto the snake instead of vice versa, as in Arthur's adventure. This is because snakes as a rule are homebodies, while we human beings are always tramping around the earth, blundering into their living rooms and kitchens without so much as first knocking on the door. Is it any wonder they generally regard us with angry distaste?

Such intrusions, if we are to withdraw unimpaired in health, must be handled with the highest diplomacy. They always are critical, yet not completely hopeless.

As a case in point, this writer while climbing the face of a more or less sheer cliff, lifted his own face above the edge of a shelf 30 feet above the ground, and thereby projected his nose almost into contact with the nose of a serpent which, in the circumstances, seemed to be the biggest snake in the world. For long moments we stared at each other, literally eye to eye, and though his reptilian highness possessed orbs with circular pupils, this did not mean he was not furnished with hypodermic teeth. All slit-eye snakes are poisonous, but many round eye snakes are just as poisonous.

The deadly coral snake has a notably small, round, and probably innocent eye, but obviously this terror of the ledge was not a coral snake since he was all black instead of being lit up with red and yellow bands, and besides this encounter took place in the north, where the bright little assassins do not venture. He might have been a timber rattler I thought, but there was no rattle, no movement of any kind, and he had no depression, or pit, in the sides of his head, between the eyes and the nostrils. Incidentally these pits, which give the name of "pit viper" to their owners, serve a purpose as yet unknown, at least to a snake. To us, the sight of a pit is the same as a sign that reads, "Danger! Keep Away!" And if you don't believe in signs, let me introduce the pit-owners by name: rattlesnake, moccasin, copperhead, bushmaster, fer-de-lance. That will show you.

In my predicament, hanging by my finger tips 30 feet above the ground, I concluded my vis-a-vis was

a blacksnake, member of a tribe everybody says is harmless, but I don't believe what everybody says. A blacksnake can bite, and when annoyed, he does bite, and I don't call that harmless. The worst of it is, blacksnakes seem to be annoyed most of the time.

Handling this specimen on the ledge therefore, posed the prime problem of how not to arouse his temper. My technique was to say mentally (not aloud because my voice might have startled him into doing something to my nose I'd be sorry for), "Excuse my intrusion, please. I didn't know this ledge was taken," and then slowly, slowly, to lower myself out of his sight. It worked. He watched me go without so much as sticking out his tongue, which shows that courtesy is always the best policy, even with fussy-tempered blacksnakes.

Undoubtedly, the best way to travel through snake country with safety, is to make some noise as we go. The pit vipers particularly are quite sensitive to noise and vibrations, and if they know we are approaching, they much prefer to slip off silently and avoid a meeting altogether.

In the event that noise and courtesy fail, and the snake we meet bites us, we know what to do, or do we? Some folks reach for the whisky bottle, and that's all wrong. Others will dab the wounds with half a raw potato, or onion, or even strap on a piece of freshly-killed chicken, and these are all wrong, too. Another school of thought, or guesswork, leads its practitioners to pour on crystals of potassium, rubbing them vigorously into the fang holes. This treatment seals the poison inside, just where the snake wanted it to go in the first place. In contrast, gunpowder has its advocates, the gunpowder being poured on and ignited. This is what we call death by two forms of agony instead of one.

At present, there is only one known improvement on the make-it-bleed-freely and suck-out-the-poison treatment. This improvement employs injections of anti-venin, using a hypodermic needle that comes with a kit. This serum is made from horses. A horse is injected with snake poison in a succession of small doses until the animal is immunized, then the anti-venin is made from the blood.

When passing through snake country, we will be much better off if we carry a first aid kit on our hips instead of a flask. Some kits are as small as four inches long, two and a half inches wide, and three-eighths

of an inch thick. Everything is packed in this easy-to-carry little tin box.

Children are particularly susceptible to snake bite, since their bodily fluids have insufficient volume to dilute the poison to the extent that normally occurs with an adult, and besides, they are more likely to romp into old stone walls and fence lines, places dearly loved by reptiles. Rarely can a stricken child describe the snake that struck him, consequently we must be prepared to distinguish the deadly wound from the non-poisonous variety, and the sooner the better.

Two large holes are clear evidence that a pair of poison fangs have been inserted and first aid must be applied immediately. This means we must cut into each fang hole until it bleeds freely, using whatever sharp edge we can find, a piece of broken glass, anything. It means also the applying of a tourniquet between the wound and the heart to prevent, or at least slow down, the advance of the poison through the body. It means working fast if a life is to be saved. We have records of persons dying from the pit viper's bite in from ten to 15 minutes.

Snake poison has a tremendous effect on human blood. It so debilitates the red corpuscles that infections of all kinds are easily acquired. For this reason, if we survive the bite itself, we actually have won only half a victory; for the next two weeks at least, a physician

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The whirr of the rattlesnake's rattle serves as fair warning to intruders





"Lady fly casters"

Men, Women and Wilderness

ZEKE Brackitt, by reason of being a top rank northwoods guide, was a student of men, women and wilderness. Moreover, perhaps for the same reason, Zeke was a militant bachelor who had eluded the fair sex through the years. On long trips, if there were ladies in

"Overtippers"



By EDMUND WARE

the party, one of them invariably elected to ride in Zeke's canoe. They asked him about life, love and loneliness. He sat in the stern and suffered, braving the hazards of the curved eyelash and the sultry look along with those of rapid and portage.

"Bobby pins in the blankets," Zeke muttered darkly. "Chanel taintin' the woodsmoke. But my cabin is my stronghold."

You gathered that when Zeke got off a long trip he holed up for a period of convalescence. It was a swell cabin. It smelled of cedar. It was devoid of dirt, curtains, and cosmetics, and across its threshold had never fallen the shadow of a lovely figure.

I used to dream about Zeke's cabin in the winter. I still do. Not because it was a bulwark for bachelorhood, but because of the canoe trips

we planned there, the grub lists we checked, and the trout we cooked on Zeke's black-gleaming stove. I also like to remember the wonderful conversations we had about the wild country—particularly the one on the subject of northwoods etiquette. This conversation, besides being a model for correct, or incorrect, behavior for sportsmen of both sexes, is a story in itself. It began quite innocently one May afternoon while I lolled comfortably and contentedly on Zeke's cabin porch.

After a year in New York, I was so glad to get back to Zeke's place that I didn't at first notice his uneasiness. But you couldn't call it uneasiness, come to analyze it. The plane that had brought me in took off from the lake, and we made ourselves comfortable on the cabin porch, looking off over the water as we'd always done—except that Zeke kept shifting his eyes to the tote road

Zeke Brackitt, bachelor and top northwoods guide, believed woman's place was in the home—somebody else's. This parable of the tiger and the fawn concerns the courage of his convictions

that ran for a rutted half-mile along shore before disappearing into the forest on the long way to town.

I didn't think anything of it at the time. We'd got going about past trips. Zeke told about one where a man brought a case of sparkling water along because he wouldn't drink river water with his whiskey.

"Six portages on that trip," Zeke said. "Extry trip over each portage for that sparklin' water—sixty pounds it weighed. An' the whiskey, too."

"Did you shoot the guy, Zeke?"

"Nope. Jest dreamed about it. 'Twas beautiful."

That's what got us going on northwoods etiquette. How should a sportsman behave, in order to get the most out of his excursion into the wild country? What are the rules for harmony in camp? And what drives a good guide crazy?

"Now, you take Paddle-Splashers," Zeke said. "Usually young folks, they are. Bad. But the Wet Sock Wingers and Moccasin Dryers is worse."

"I know," I said. "They erect little alder frames around the campfire when you're cooking a meal. They hang wet raiment on the frames. They burn the toes out of their moccasins—and then borrow yours."

"Yuh," said Zeke, with a long glance down the tote road. "Then you have the Junior Fire Builders. 'Little Match Burners.' I call 'em. Ain't a one I ever saw could start a fire with benzine and a dry mouse's nest."

"Are they the ones that put green spruce boughs on the fire, Zeke?"

"Nope. They jest fall in the same age group. Same age as the ones that jump into a canoe, 'stead of steppin' in it."

Zeke was going nicely, now—bubbling to a theme that had been boiling in his breast for thirty years. He spoke of the booted and belted, the hairy he-men, able in narration of past performance, absent under the tumpline of today. He described a category of males self-decorated

with future laurels, and the big-chested money boys, the over-tippers.

"You asked for it," Zeke said.

"I'm getting it," I said. "It's for total human good on the trail. Tell me more. What about the amateur cooks?"

"I knowed one that made a huckleberry pie on Little Mopang Beach—with dogberries."

"Anyone die?"

"Nope. A few got sick. We lost four days. Then—then there's the Sweaterforgetters."

"Children?"

"Nope," said Zeke, forlornly. "Women!"

I had probably known that Zeke would get around to his most harrowing subject. It seemed to be drawing him toward an inevitable brink, or climax.

"You boil the kettle, say," he said, "at Hub Hall Cove. At two in the afternoon, three miles up the rapids, she says—"

"Who says?"

"This woman—any woman. She says, 'I left my sweater on a rock. Forgot it.' So you go back down the way you poled up, an' you are lost from the rest of the party—alone with her, an' she—she—"

"What, Zeke?"

"Well, I jest get them the sweater off the rock where they left it, an' then, well, we just go on up the rapids again."

"Do they ask you to stop at springs, or pick flowers?"

"Yuh—always."

"Do you do it?"

"Nope—too dangerous."

It was after Zeke had switched his eyes from the lake to the spring-wet tote road again that the matter of the Lady Fly Casters came up. This was a classification that I had overlooked, although I suspected its existence, since in some states they have streams reserved exclusively for this species. Zeke approached the subject obliquely, first giving a couple of poignant dodges—defense mechanism.

"Women," he said, "fall into four sections, naturally."

"Arms, legs, eyes, and—?"

"I don't mean their bodies. I mean their conversations on canoe trips."

He gave samples with solemn patience, as follows: (1) "It must be lonesome, living in the woods." (2) "Oh Zeke! I heard a noise!" (3) "You're so strong—so romantic. Like Renfrew of the Mounted."

Here, in the strife between men and women, you had the intimate, sympathetic attack; the please-protect-me gimmick; and straight flat-terv.

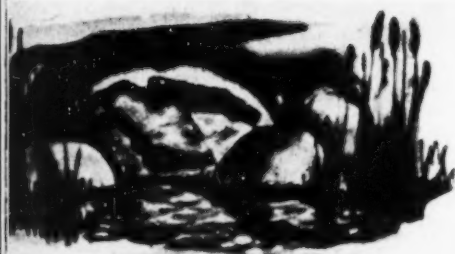
"What about the other one, Zeke? You said there were four."

At this moment, I heard the noise of a distant, tortured, and faintly



"Paddle splashers"

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"Sweater for getter"

familiar engine. Zeke heard it, too—and looked toward the darkling spruces where the tote road disappeared toward town.

"Number Four?" he said, hollowly. "Did I ever tell you what happened to Jim Trunk?"

"Who? Jim Trunk?" I thought I knew every, guide in the Mopang Country, but I'd never heard of Jim Trunk.

"Yuh," Zeke said, "Jim Trunk. Guided four women—four—on the Big Mopang River trip. All—uh—all Lady Fly Casters."

I had supposed that Lady Fly Casters were far between, and inquired how it was that this Jim Trunk had hit such a turbid jackpot.

"Jillpot," said Zeke, and explained laboriously.

It seemed they were all school teachers, and had engaged four guides, three of whom had come down with virus X, Y, or Z. Jim Trunk, alone immune, had taken on the whole group in his twenty-foot freight canoe.

"Jim Trunk," I said, puzzling. "Don't seem to remember the name—let alone the face."



"Jim climbed 78 trees unhookin' their riggin'"

"I'm tellin' you," Zeke said, severely. "He was champion fly caster one year."

"So were you, weren't you?"

"Yuh. But I'm tellin' about Jim. The four girls heard he was champion. They all wanted to have him teach 'em. An'—an'—"

"They all had fly rods?"

"All of 'em. An' they all went after poor Jim Trunk, an' he tried to teach 'em—an' they hooked him on their backcasts, an' they couldn't get their forward casts out of their laps. Jim climbed 78 cedar trees unhookin' their riggin'. He was almost beat out—till the four girls started fightin' amongst themselves, over him!"

"My Lordy!" I said "On the Big Mopang trip too!"

Zeke nodded—not toward me, but toward the tote road, where a small black car had just emerged erratically from the spruce growth.

"Someone coming," I said.

"Yuh," said Jim, and went nervously on with his tale of travail.

On the Ten Sleep Portage between Big Mopang and Chancery Lake, the mysterious Jim Trunk—according to Zeke—had rested a two-hundred pound tumpline load on Fox Ledge, about half-way across. It was here that the four girls had had a final flurry. It had stopped just short of hair-pulling. And at Fox Ledge, all in tears, they had started off in four directions! All in a swivet over poor Jim.

"Migod, Zeke! That's wild country!"

"Wild?" Zeke said, miserably. "Ain't nothin' but bobcat tracks in miles."

"And there was Jim Trunk, knowing they might all get lost—and all

of them gone in a different direction. What did he do?"

"Started talkin' to himself—an' believin' it!"

"Bad," I said.

"Dreadful," said Zeke.

The little black car was now highly audible as well as visible. It was an ancient car, but immortal, like Westminster Abbey and the Book of Kings. This mud-merried conveyance was a deep rut runner, and a boulder jumper, and it careened to the tune of its unmistakable planetary transmission. It was, in fact, Zeke Brackitt's unborrowable lumber road



"They burn the toes out of their own moccasins and then borrow yours"

transportation to and from town.

"Zeke," I said, "what happened to Jim Trunk?"

Zeke gave a slight shudder, and a slight smile. On the porch bench his long, sinewy body stretched like that of a huge, successful panther.

"There were four girls, Zeke," I prompted. "What about that fourth one?"

This one, it appeared, was in the special fourth category. The category—or female section—that Zeke hadn't as yet defined.

"Jim was a wise guide," said Zeke. "He jest set thar on Fox Ledge an' waited. Them girls showed up, one by one. That is, three of 'em did."

"What about number four?"

Zeke watched the approaching car. As it navigated the ruts and old sled tracks, he seemed to be giving it body English.

"Jim Trunk had to hunt for Number Four. That—that Number Four—they're extry. They don't say nothin' at all about life, nor love, nor please help me over this rock. Number Four jest looks—like a fawn deer looks—and makes you feel—"

"Feel how?"

"Well, like Old Jim Trunk says, this one made him feel like she was

(Turn to page 33)

Our hero borrows the Pied Piper's methods to achieve the results of St. Patrick in chapter No. 7 of a series on Davy Crockett folklore

DAVY AND THE ROLLING REPTILE

By JAMES STEVENS



WHEN youthsom Davy Crockett made his lone expedition to the Oregon country the big timber of the West Coast was inhabited by a breed of snake that could spit pizen fit to knock a cougar out of a tree with only one pa-tooeey," avowed Uncle Ben Cotter. "And big!" he mused on. "Why, there was a boss sarpint who had a hunderd and eleven rattles which alone stretched seven feet. Old Hickory—that was the name Davy gave the monster, after General Andrew Jackson. Davy found the rattles one day where the sarpint had left them so's to creep up quiet on a bear. The find puzzled Davy. He gave it a kick and the responding rattle was like peals of thunder to hear.

"Yes, sir, Bugs," Uncle Ben went on, speaking directly to the new log-bucker, Bugs Dowd, "the wilderness snakes of the Douglasfirs in Western Oregon were mighty mongrels. One

could unjoint himself in a flash and h'ist off in seven directions at once. Or he could fork a tail into pythony jaws and roll himself like a monster hoop, going fast as an antelope. This Old Hickory could hook a 60-pound salmon on one fang. Well, you can figger the feeling that Davy Crockett felt up and down his spine when he found the seven-foot rattles—and then spied the ENTIRE remains of the snake wheeling down the trail for him!"

"Wait a minute," growled Bugs Dowd. "Hold on there. I've heerd enough from you about snakes. Talk about rats, if you've got to. But snakes I can't abide."

Bugs was a not uncommon kind of character in the work camps of Southern Idaho, back there in the year of 1904. But he was about the worst of his kind that I'd ever run into. Uncle Ben Cotter had hired him drunk in Weiser at the end of a well-nigh desperate hunt for a hand

who could fall timber and buck logs. The harvest season was taking the best men to the ranches. Bugs was dirty. He was mean when sober. He complained at meals. He would try to turn agreeable talk into snarly argument. A fouler mouth was never heard.

"I'll give you one more day to fire him," I'd heard Aunt Min warn Uncle Ben at supper time, when I was packing the slop to the pigs. "He goes or I go. We have a hired girl and a hired boy to look out for. Mind that, Ben Cotter."

I was the boy, a 12 year-old on my first job away from home. It wasn't much, paying only 50 cents and board per ten-hour day for choring around the shack outfit. We were up on the headwaters of Mann Creek, in the pines of Mt. Hitt. The saw-mill and planer were run by a J. I. Case thresher engine. Horse teams and their owners were hired together

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A Closer Look at Agriculture

By FRED O. BAILEY

IN mid-February Secretary of Agriculture Charles F. Brannan issued Memorandum No. 1278 for the "Coordination of the Department's Agricultural Resources Conservation Services." His objective was to end perhaps the hottest jurisdictional dispute in Department history—the dispute over who had what authority, and responsibility, for conservation of the nation's soil, water and forestry resources.

Now, almost five months later, there still is not unanimous agreement even over what was intended in the order. But, by and large, there seems to be a consensus that it is making poor prophets out of those who predicted it would wind up in a grand free-for-all. Those who called the Memorandum a shotgun wedding now concede it has many of the earmarks of wedded bliss. The honeymoon, however, still could wind up in a grand family row, it is generally conceded.

The order names half a dozen Department agencies, but principally concerns the U. S. Forest Service, the Soil Conservation Service and the Production and Marketing Administration. Relatively minor roles were assigned to the Extension Service, the Farmers Home Administration and the Agricultural Research Administration. Primary emphasis was placed on coordination of SCS and PMA conservation work, with the Forest Service sort of being dragged in by the tail.

Undersecretary Clarence McCormick, in a memo to heads of the federal agencies involved, describes the "spirit and intent" of the Memorandum as "the coordination of agricultural resources conservation program which is to be carried out in a thoroughly cooperative way with state and local agencies having conservation responsibilities." The agency head interpreted that as a directive for closer cooperation with state and local agencies. He requested "joint formulation and determination of policies and programs at all levels."

When it came to the major question, "Can this reorganization be an instrument for compelling conservation practices on private lands?" both Lyle Watts, Chief of the U. S. Forest Service, and Richard McArdle, assistant chief, chorused an emphatic "Hell, no; and you can put that in direct

quotes." Anyone who can read that into it, they insisted, has a "mighty active imagination."

But, they added, that is not to indicate that the Forest Service has changed its position in regard to legislation for regulation of cutting and other timber practices on private lands. It still believes it should have such authority in the interest of conserving the nation's timber resources.

"We have made great progress in timber conservation on both private and public lands, but the fact remains that the total supply of sawtimber is continuing to decrease year by year," Watts said.

At the Washington level—and from all reports the state level also—there was fear on the part of many that PMA was being made the top boss over conservation and would attempt to dominate the other agencies. There is evidence now that fear is at least subsiding. There seems to be less suspicion and distrust of PMA, at both national and state levels.

The Memorandum assigns to an Assistant Secretary national authority for supervision and direction of Forest Service, SCS and PMA conservation work. At the state levels it requires that the headquarters of all USDA personnel with state-wide responsibilities shall be consolidated in a single state office. At both the state and county levels the PMA committees are the agencies held directly responsible for initiating coordination of conservation work.

Policy determinations are required to be made through consultation of the various federal and state agencies. The right of appeal, all the way to the Secretary, is specifically reserved for any agency which wishes to do so in case of disagreement. Washington PMA officials promise that "the first PMA officer in the field we catch trying to bully anyone is going to be fired."

Duties and responsibilities of the various federal agencies in the field are spelled out in some detail. At the state level the Memorandum requires that the "PMA State Committee, the State Conservationist of the Soil Conservation Service and the Forest Service official having jurisdiction of farm forestry in the state shall jointly formulate and determine the soil conservation policies and programs for

Culture's Reorganization

guidance and direction of SCS, PMA and FS personnel and operations within the state by means of conferences or other means to be initiated by the chairman of the State PMA Committee." The president of the state land-grant college must be invited to designate members of his staff to participate. The state director of the Farmers Home Administration also is required to be invited. Department officials say the term "participate" means a full voice in the discussions leading to determination of policies.

There is an interesting and revealing story back of that section in the Memorandum. During the inter-agency discussions which led to it, an agreement was reached to include the state forester on the state policy panel. In the final writing, however, the state foresters seem, as one FS official put it, to have "fallen between two chairs." They insist that the omission was neither intentional nor significant. Forest Service officials point to a subsequent administrative decision in support of their contention.

Those who drafted the final version of the Memorandum passed over the fact that, in most states, the USFS has had no specific "Forest Service official having jurisdiction of farm forestry in the state. . ." To cover up that miscue, the FS designated regional officers and, in some states, local forest supervisors, to serve as representatives at the state conferences. In every instance the official so designated has invited the state forester to participate fully in the meetings. This, FS officials say, is another indication of good faith in their expressed desire to work in closer cooperation with state forestry officials.

Chief Watts and Assistant Chief McArdle, say it is their intention to work in the closest possible cooperation with state forestry officials. "We will shift from federal to state forestry officials the major details of operational direction and functions of forestry work covered in Memorandum 1278 as rapidly as possible," McArdle said. "On professional work dealing with timber conservation work the shift to state agencies will be complete, if they will take it."

Most of the ruckus over the effect of the order

on the Soil Conservation Service appears to have been stirred up by Section E of the order, dealing with "Coordination of Forestry Activities." The first sentence in that section directs that "all forestry activities of the Department shall be under the direction and control of the Forest Service." The SCS fears this a directive to remove all responsibility for farm forestry from its program. The Forest Service, which stands to gain most by a literal interpretation, says the wording was "misleading and unfortunate." It says nothing of the sort was, or is, intended.

As a matter of fact, Department officials say the Memorandum was issued without the Solicitor's office having been consulted. As a result the Solicitor is having some difficulty in trying to determine exactly what the lay authors had in mind.

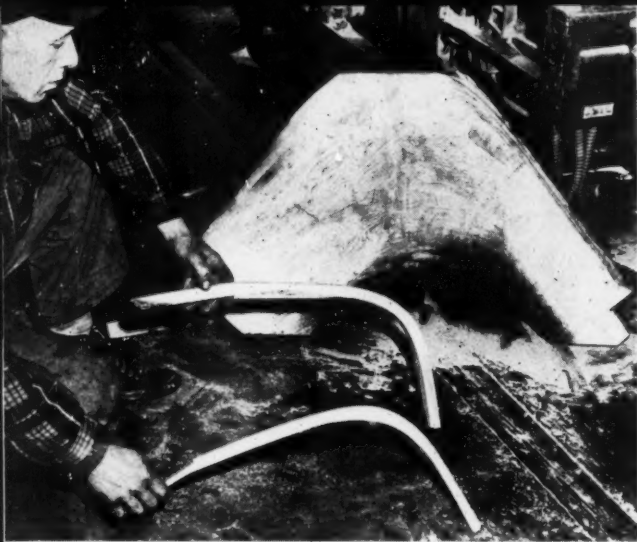
Forest Service officials say they have no plans, for the present at least, for taking over either the personnel or the activities of forestry specialists in SCS. They expect that the present relationship between the Forest Service, on the one hand, and SCS and state farm foresters will be continued. Neither does FS plan to employ a single federal farm forester, or add other personnel as a result to the Memorandum.

The problem of finding a permanent home for the 28 SCS forestry specialists engaged in training farm foresters has not been resolved. The Forest Service says it has no immediate plans for transferring them to the FS payroll, but it does not rule out the possibility that this will be done later.

One objective of the reorganization, the FS says, is the elimination of duplication of work and personnel as between federal and state agencies. Any implication that there are duplications in farm forestry work now is a moot point that will get you an argument out of SCS at the drop of a hat.

SCS maintains that cooperating soil conservation districts have been in a very large measure responsible for the interest in the increased tempo of farm woodlands activities. It contends that any move which would lessen the interests of SCS technicians in the farm woodland problem, or that would handicap them in dealing with it as a part of a basic farm conservation program would result in

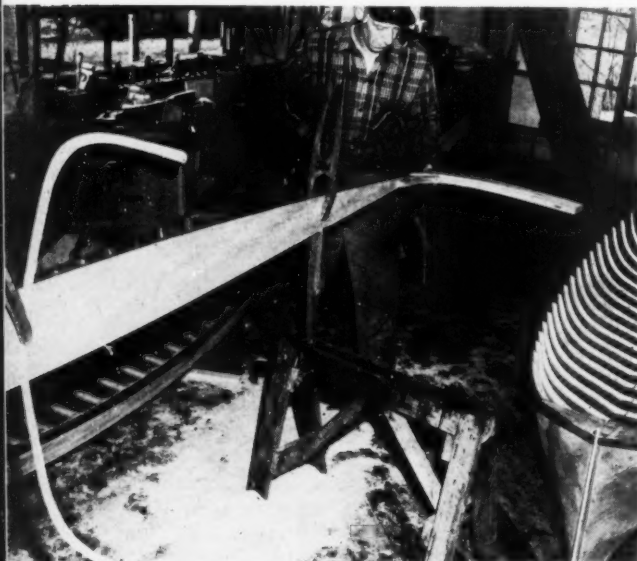
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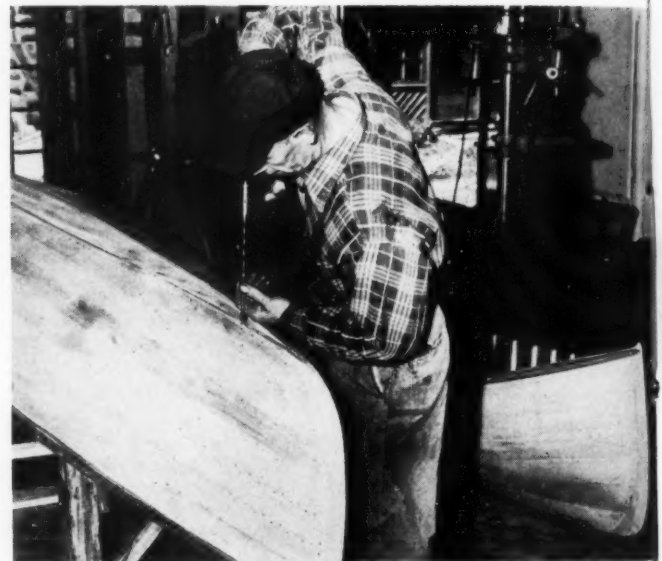
Nature provides a natural curve for the sturdy ribs that give this light craft its strength



Planking for the bottom board is pine or cedar, quartersawn to prevent splitting and checking



Inside stems are fastened to the bottom board, as are the boat's 22 to 25 pairs of spruce ribs



Driving home one of the 3000 brass screws used to join planking and ribs in a well-made boat

Marking the yokes for the spot where they will rest on the yoke rails is an exacting operation



The finished product — sleek, utilitarian, justly called "light truck of the Adirondack waterways"



The Light Truck of the Adirondacks

By ROLAND B. MILLER



THESE are those who would scoff at an oar-propelled boat dating back to pre-Civil War days, call it a relic of another age and say, make way, oldtimer, for the sleek, mechanical outboards. But the many defenders of this venerable granddaddy of the rivers and lakes are firmly convinced that the guide boat still deserves a place in the modern scheme of things and are quick to point to the utility and durability that have made it the "light truck of the Adirondack waterways."

This craft has been—and still is—in such wide usage that probably every section of the Adirondacks would gladly lay claim to its origin. One such claim from a reliable chronicler is that nothing of greater historical importance attaches itself to Long Lake than the fact it was here the first guide boat was built by Mitchell Sabattis and Cy Palmer. The time was about 1842.

There were a few initial refine-

ments of the original design, but after elimination at an early date of the square stern all guide boats were the same in lines. Builders—each a master craftsman—virtually followed the same set of plans and today, except for modern machinery to expedite the work, the procedure remains the same from sawmill to varnish brush.

To say there is an average boat would be misleading, but boats will measure from 14 to 16 feet in length, 32 to 38 inches wide amidships, 23 to 26 inches high at the bow, a little less at the stern but usually 12 inches deep in the center. Three cane seats, the end ones fastened and the middle one movable and resting on rails, is usual. Standard also is a set of rails for the yoke by which the boat is carried. A 16-foot boat will weigh from 76 to 78 pounds without equipment—oars, oarlocks, seats, yoke, paddles, backrests; a 14-foot boat, less equipment, 70 pounds. Oars are

seven to eight feet long, well balanced and overlap about ten inches to make cross-rowing easier. Floor boards are unheard of, but a piece of carpet is sometimes carried as a concession for the "sports" to be transported. The guides want nothing loose like floorboards to add to the weight and be a nuisance; lightness is of prime importance. Early guide boats sold for \$1 a pound weight.

Lumber for the ribs and stems calls for spruce, cut from the stump and larger roots, taking advantage of the natural curve of the grain of the wood in that part of the tree. Planking is pine or cedar, quarter-sawn to prevent splitting and checking. Most builders use a revolving frame on which the bottom board is fastened in setting up a boat. The inside stems are fastened to the bottom board as are the many pairs of ribs, 22 to 25 in number, depending on the length of the boat, which overlap at the foot about the width of the bottom board at their particular station. The ribs are about five-sixteenths of an inch thick and seven-eighths of an inch deep. Unless clamping is used, batten strips hold the ribs in place until the planking is put on. Planking strength is found in using first growth material. Rib strength comes from the natural curve of the stump or root "knee."

Planking a guide boat is a very delicate job. The boards and planking are about three-sixteenths of an inch thick and cut on a curve to fit their particular place. Each edge has to be beveled about half an inch and also the ends of the planks where they are spliced.

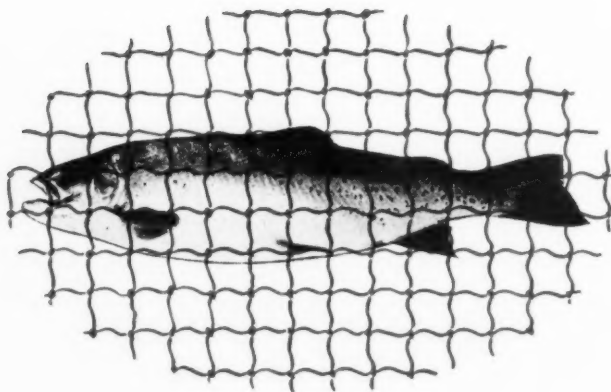
In the middle of the boat there is considerable curve to the ribs and

(Turn to page 30)





Cutthroat Trout of the Yellowstone



By CLAUDE M. KREIDER

TODAY, as when Lewis and Clark and other early explorers first saw the magnificent mountain wilderness which is Yellowstone Park, all the upper river drainage—and immense Yellowstone Lake—is inhabited by countless thousands of fine, native cutthroat, the *Salmo lewisi*. Fortunately for the many thousands of anglers who each summer visit this great Park, the native cutthroat trout has been perpetuated there by far-seeing Park authorities. Perhaps in no other place in the world has a scientific plan of restocking trout been so successful.

Also, many waters, originally barren because of falls and other natural obstacles, now abound with trout as a result of this constant stocking program.

Roughly a million persons visit this great park annually. Not all of them fish, of course, but a great many do, and the rangers estimate that one trout of the cutthroat or other varieties for each of the million would not be a bad guess as to the number of fish taken. A million trout, a million pounds at least, taken in two months or a bit longer! The season is short in Yellowstone, July and August being the principal "tourist months."

This fisherman's paradise does pose one problem, though, especially for the serious angler who likes to know exactly what he is catching. That problem is the sometimes not so simple one of classifying the principal varieties of the trout. The many recognized sub-species, a variation in color and form in fish of the

Fishing bridge, where the Yellowstone River leaves the Great Lake, is a popular spot with anglers. And very few of them ever fail to hook the legal limit

Thanks to far-seeing Park authorities, this great wilderness still abounds with as many fine fish as in the day of Lewis and Clark

same species, often in the same stream, and changing water and food conditions are making this classification increasingly difficult. Hybridization in many instances compounds the confusion.

The fine cutthroat trout originally inhabited most of the waters of the Great Basin and the Rocky Mountain region and is still to be found in great numbers in countless streams and lakes. But, being closely related to the coastal rainbow trout, and spawning at about the same time during the spring, the cutthroat frequently hybridizes with the splendid rainbow, and his identity is lost. The resulting fish is a grand gamester, often having the rainbow's marvelous leaping ability when hooked, so nothing "is lost" from the pure angling standpoint. The true cutthroat does not leap, though he takes fly or bait avidly, when it is properly presented, and provides a most satisfactory battle.

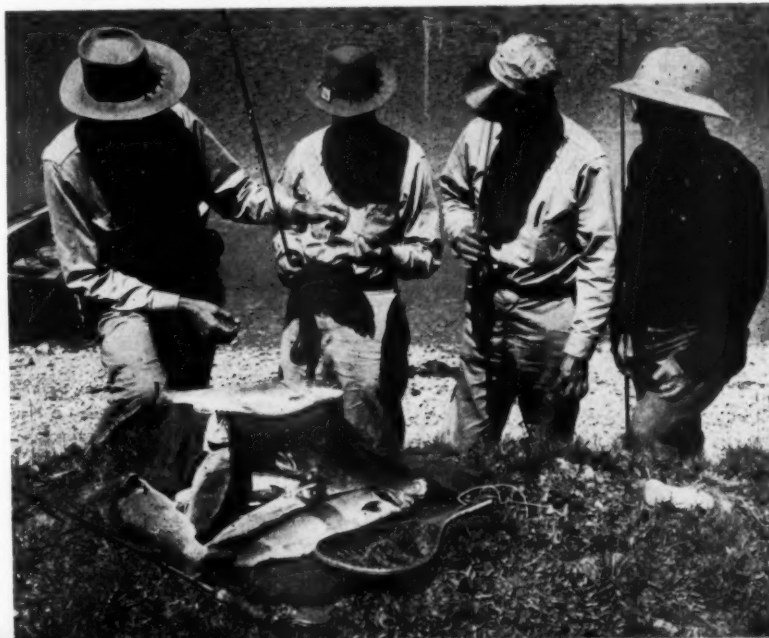
The two separate species are sometimes mistaken one for the other by the uninitiated, since both often have backs of varying shades of green, and always black spots along the back and on the tail. But the red slash on the cutthroat's underjaw which accounts for his name, will infallibly identify the fish. And, having scales so minute that his sides appear "satiny," is also a cutthroat characteristic. Some rainbow hybrids will also show the red mark, but other markings, such as larger scales and the "rainbow" band, will identify the cross-breed.

(Turn to page 34)



"Perfect dry fly water" is what fishermen appreciatively call this stretch of the Yellowstone just a few miles below the lake

These colorful cutthroat were lured from the weed beds of Henry's Lake with a skillfully-cast fly of the small shrimp nymph pattern



CITIES WITH A FUTURE

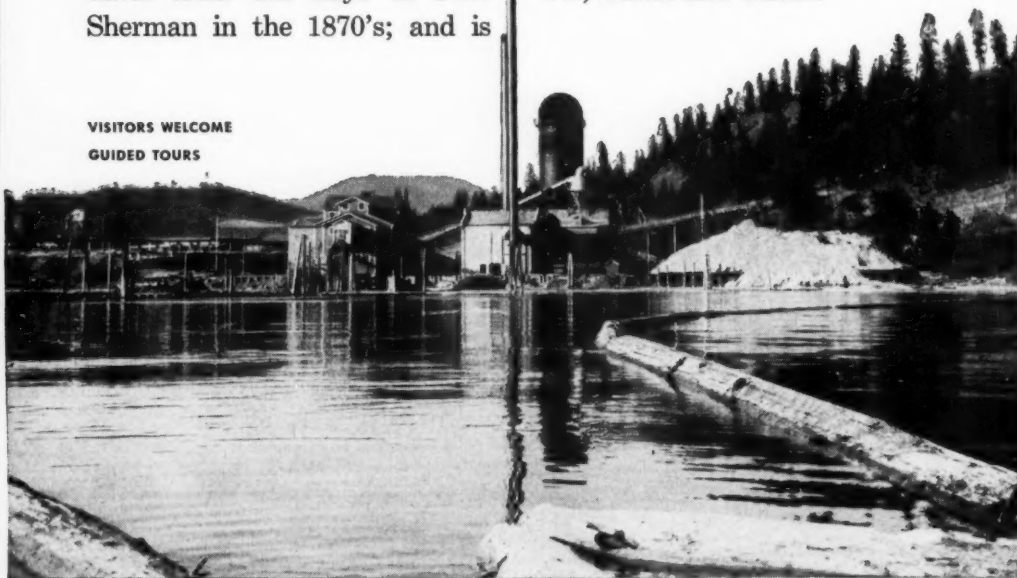
COEUR D'ALENE IDAHO

Located on the north shore of beautiful Lake Coeur d'Alene, at the junction of U.S. Highways 10 and 95, the city is noted for its recreational and scenic attractions. Cradled in a setting of pine-clad mountains and rolling, fertile valleys, it is truly a gem among the cities of the West.

The history of Coeur d'Alene dates from the days of Fort Sherman in the 1870's; and is

closely linked with the building of the great Idaho White Pine lumber industry, now its principal business. Four large mills, including the Rutledge Unit of Potlatch Forests, Inc., shown in the photograph below, have an annual capacity of over 300 million board feet of White and Ponderosa Pine, Red Fir, White Fir, Larch and Cedar.

VISITORS WELCOME
GUIDED TOURS

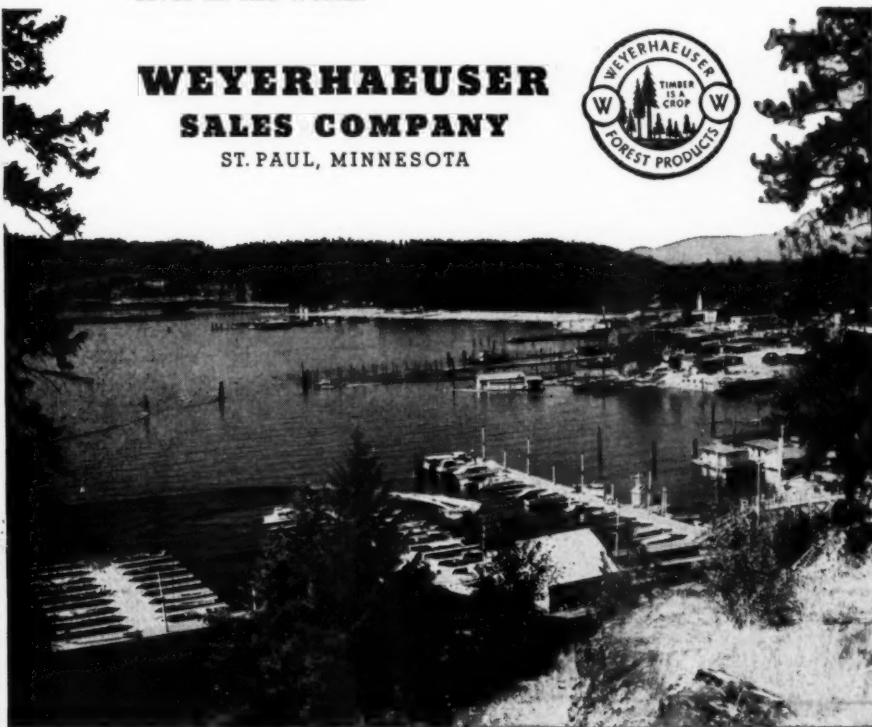


NO. 5 OF A SERIES

Beautiful Playground of the Pacific Northwest

Nature has overlooked nothing to make Coeur d'Alene a favorite playground of the Pacific Northwest. Here, where modern civilization meets the great unspoiled beauty of the outdoors, you will find recreation as you like it. Among favorite diversions are boat trips up the lake and into the shadowy St. Joe River, the highest navigable river in the world.

WEYERHAEUSER
SALES COMPANY
ST. PAUL, MINNESOTA





Heintooga Lookoff provides this spectacular view of a portion of the Great Smoky Mountains in North Carolina

Even the "tenderfoot" can be a real mountaineer on this ten-day package vacation starting October 2

AFA Sponsors New Type Smoky Trail Trip

FOR the Easterner who is looking for a mountain vacation practically in his own back yard, The American Forestry Association this fall is sponsoring a ten-day saddle trip into the mile-high country of the Great Smokies in North Carolina. Scheduled for October 2 to 12, the outing is something entirely new in AFA services, and, although similar, is not to be confused with the Association's Trail Riders of the Wilderness program which is now in its 18th year.

The Smokies trip is intended more for the tenderfoot than for the inveterate outdoor enthusiast who really likes to rough it. The new trip will include "breaking-in" rides for those who need to brush up on their horsemanship and each night except one will be spent at the well-appointed ranch house of the Cataloochee ranch, near Waynesville, North Carolina, which will serve as vacation headquarters. This thousand-acre sheep and cattle spread long familiar to Trail Riders of the Wilderness, is located right on the edge of the Great Smoky Mountains National Park—one of the nation's most magnificent—and it offers vacationists that rare combination of an authentic rural setting plus all the conveniences of modern living.

The ten-day schedule includes two half-day "breaking-in" rides. The

first will be to Sheepback Lookoff for a wonderful view of the Plott Balsam Mountains and the other to Purchase Knob to enjoy sweeping views of the Smokies. Four all-day rides are on the agenda. One is a loop trip through the towering virgin timber of the Park, over Hemphill Bald and down to Caldwell Fork by way of Double Gap Trail. The return route will be via McGee Branch and Cataloochee Divide. The round trip is about 15 miles.

Another loop trip is planned through picturesque Hemphill Valley, with its interesting mountain cabins, and on up to Raven Roost Cliffs. The 14-mile swing is completed via Purchase Knob. On another all-day trip riders see some of the most striking

scenery on the North Carolina side of the Park on the way to Heintooga Lookoff. The fourth day-long trip covers about 15 miles over Cataloochee Divide, through Paul's Gap and Fork Mountain, returning over Double Gap Trail.

The only overnight camping trip is to Mount Sterling Peak, one of the most beautiful campsites in the Park. This junket covers about 34 miles. Short rides over ranch fields and to nearby points of interest also will be available on days or half days for which no definite schedules are made.

Groups may be of any size up to 15 riders. The cost per person for the full ten days is \$170. Reservations may be made through AFA headquarters in Washington, D. C.

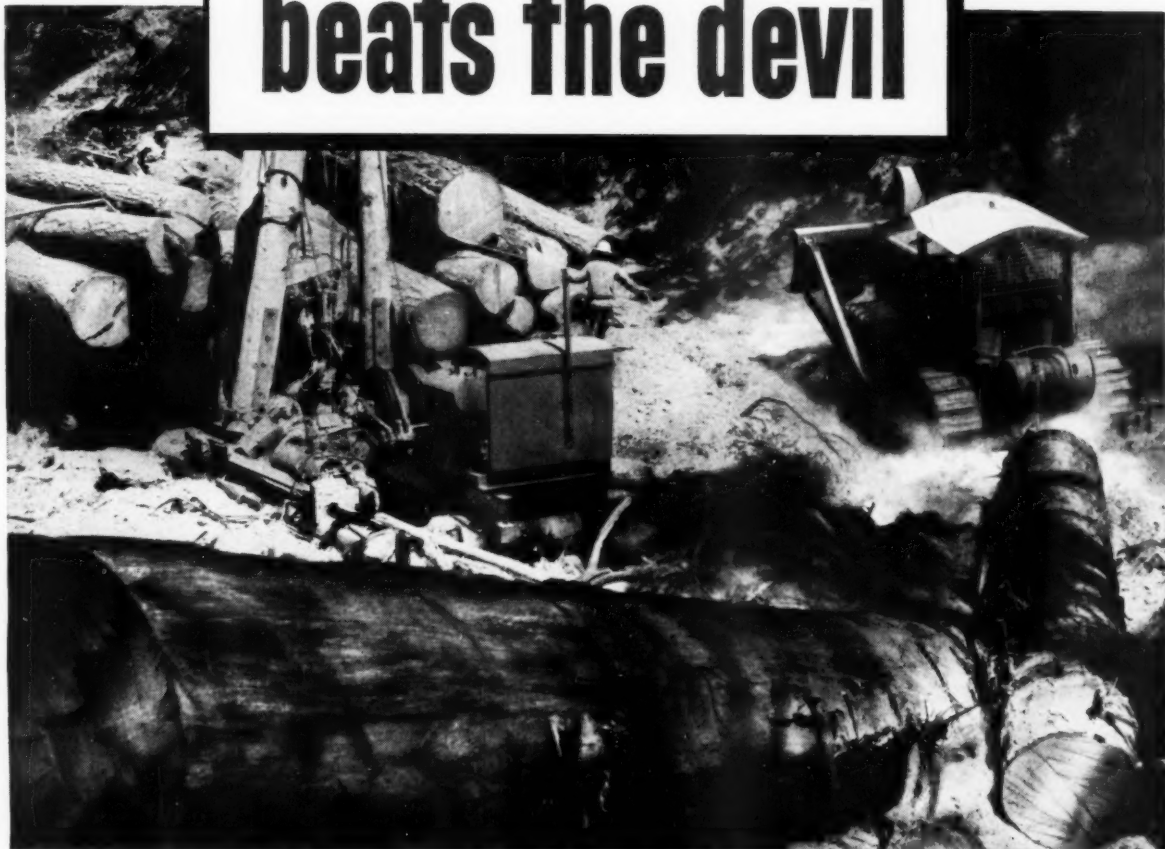


Tired but happy riders "take five" along the peaceful mountain trail

BIG RED



beats the devil



SKIDDING FOREST SERVICE TIMBER through the dust of Devil's Den, two 3,000-board-foot logs thunder down behind a Big Red TD-24. The same crawler dozes access roads, makes it pay to log where it used to be impossible.

DEVIL'S DEN GIVES UP HEAVY TIMBER TO INTERNATIONAL'S CHAMP CRAWLER

Out in the high Sierras it took International's Big Red TD-24 to dive into Devil's Den and come out with 100,000 board feet a day for Chico Wood Products Co. Superintendent Joe Mastelotto tells the inside story:

"I've never seen anything to compare with International's TD-24! It's got the most guts for the toughest logging and road building. From now on, I don't want to log with any

other tractor. The TD-24 is really the Champ!"

It's the Champ all right—with 148 maximum drawbar horsepower, the most of any crawler on the market—8 speeds forward, 8 reverse . . . fast "on-the-go" shifting . . . with finger-tip Planet Power control.

Ask your International Industrial Distributor for the low-down, including his field service and shop facilities. Find out all the answers—you'll be a TD-24 man from then on!

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILL.

POWER THAT PAYS

INTERNATIONAL



REPORT ON AMERICAN BIG TREES

In September 1940, The American Forestry Association launched a campaign to locate the largest living specimens of American trees. After ten years of diligent search by cooperating individuals, the following list of "champions" is being run serially until completed. Common and botanical names listed conform to "Standardized Plant Names" issued by the American Joint Committee on Horticultural Nomenclature. Identification and measurements are by nominators. The challenge is to locate trees larger than those listed, if they exist, and also giants of species not listed. Send all reports to The American Forestry Association, 919 Seventeenth Street, N. W., Washington 6, D. C.

Part IV

Species	Circumference at 4½ feet	Spread	Height	Location of Tree and Nominator
MAPLE (cont.)				
Chalk, or Whitebark, <i>Acer leucoderme</i>	1'7"	19'	29'	Ouachita National Forest, Arkansas. Kendall Laughlin, Chicago, Illinois.
Douglas Rocky Mountain, <i>Acer glabrum douglasii</i>	5'6"	20'	50'	Birch Bay, Washington. Oliver V. Matthews, Salem, Oregon.
Mountain, <i>Acer spicatum</i>	3'	10'	25'	Great Smoky Mountain National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Red, <i>Acer rubrum</i>	18'7"	60'	60'	Wappingers Falls, New York. H. F. Hedgecock, Poughkeepsie.
Trident Red, <i>Acer rubrum tridens</i>	9'6"	35'	83'	Warren Woods, Three Oaks, Michigan. Kendall Laughlin, Chicago, Illinois.
Silver, <i>Acer saccharinum</i>	22'10"	110'	90'	Harbor, Maine. John D. Kendig, Manheim, Pennsylvania.
Striped, <i>Acer pennsylvanicum</i>	2'4"	30'	21'	Near State College, Pennsylvania. H. H. Arnold, State College.
Sugar, <i>Acer saccharum</i>	17'6"	75'	110'	Bethany, West Virginia. Stephen Spurr, Morgantown.
Vine, <i>Acer circinatum</i>	5'8"	54'	30'	Wilhoit Mineral Springs, Marion County, Oregon. Oliver V. Matthews, Salem.
MESQUITE				
Honey, <i>Prosopis glandulosa</i>	10'10"	65'	60'	Near Gatesville, Texas. Weldon D. Woodson, Los Angeles, California.
Velvet, <i>Prosopis velutina</i>	15'	76'	55'	Coronado National Forest, Arizona, Gilbert Sykes, Tucson.
MOUNTAINMAHOGANY				
Birchleaf, <i>Cercocarpus betuloides</i>	1'9"	---	---	Medford-Crater Lake Highway, Jackson County, Oregon. Oliver V. Matthews, Salem.
Curleaf, <i>Cercocarpus ledifolius</i>	10'7"	67'	24'	Nevada National Forest, Nevada. S. D. Warner, Baker.
MULBERRY				
Black, <i>Morus nigra</i>	13'3"	74'	65'	Near Easton, Maryland. F. W. Besley, Baltimore.
Red, <i>Morus rubra</i>	8'9"	45'	65'	Great Smoky Mountain National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
White, <i>Morus alba</i>	23'	---	---	Near Parkersburg, West Virginia. Miss C. E. Aumiller, Washington.
OAK				
Bartram, <i>Quercus heterophylla</i>	16'2"	52'	88'	Mt. Holly, Burlington County, New Jersey. S. Glidden Baldwin, Danville, Illinois.
Bebb, <i>Quercus bebbiana</i>	6'10"	77'	54'	Swope Park, Kansas City, Missouri. Kendall Laughlin, Chicago, Illinois.
Black, <i>Quercus velutina</i>	19'6"	136'	90'	Lloyd's Neck, Long Island, New York. Mrs. George H. Savage, Lloyd's Neck.
California Black, <i>Quercus kelloggii</i>	36'	---	---	Yosemite National Park, California. John B. Wosky, Yosemite National Park.
Missouri Black, <i>Quercus velutina missouriensis</i>	5'10"	51'	51'	Swope Park, Kansas City, Missouri. Kendall Laughlin, Chicago, Illinois.
Blackjack, <i>Quercus marilandica</i>	9'5"	59'	56'	Near Chillum, Maryland. F. W. Besley, Baltimore.
Bottom, <i>Quercus runcinata</i>	8'10"	66'	62'	Heathwood Park, Kansas City, Kansas. Kendall Laughlin, Chicago, Illinois.
Bur, or Mossycup, <i>Quercus macrocarpa</i>	21'4"	114'	143'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
Bushes, <i>Quercus bushi</i>	5'5"	49'	33'	Near Swope Park, Kansas City, Missouri. Kendall Laughlin, Chicago, Illinois.
Cherrybark, <i>Quercus falcata leucophylla</i>	24'1"	80'	110'	Near Cumberstone, Maryland. S. Glidden Baldwin, Danville, Illinois.
Chestnut, <i>Quercus montana</i>	19'1"	111'	82'	Near Cecilton, Maryland. Karl E. Pfeiffer, Annapolis.
Swamp Chestnut, or Basket, <i>Quercus prinus</i>	30'3"	---	110'	Near Sandhill, Mississippi. Z. Waters White, Wilmar, Arkansas.
Chinkapin, <i>Quercus muehlenbergi</i>	14'1"	---	---	New Burlington, Ohio. John Pickin, Dayton.
Dwarf Chinkapin, <i>Quercus prinoides</i>	1'4"	15'	19'	Pennsylvania State College, State College,

Species	Circumference at 4½ feet	Spread	Height	Location of Tree and Nominator
Deam, <i>Quercus deami</i>	8'	50'	85'	Near Bluffton, Indiana. S. Glidden Baldwin, Danville, Illinois.
Gambel, <i>Quercus gambellii</i>	15'8"	----	45'	Deep Creek, Washington County, Utah. R. P. McLaughlin, Logan.
Laurel, <i>Quercus laurifolia</i>	24'	----	----	Near Sebring, Florida. William F. Jacobs, Tallahassee.
Lea, <i>Quercus leana</i>	7'3"	62'	70'	Forest Park, St. Louis, Missouri. Kendall Laughlin, Chicago, Illinois.
Live, <i>Quercus virginiana</i>	35'	168'	78'	Near Hahnville, Louisiana. Charles Genella, New Orleans.
Canyon Live, <i>Quercus chrysolepis</i>	36'3"	130'	60'	Angeles National Forest, California. G. Armstrong, Los Angeles.
Interior Live, <i>Quercus wislizeni</i>	20'	100'	100'	Near Sacramento, California. Arthur J. Teller, Del Paso Heights.
Mutabilis, <i>Quercus mutabilis</i>	10'4"	61'	143'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
Overcup, <i>Quercus lyrata</i>	15'5"	72'	114'	Patuxent Wildlife Refuge, near Laurel, Maryland. Karl E. Pfeiffer, Annapolis.
Pin, <i>Quercus palustris</i>	18'2"	----	----	Lawrenceville, New Jersey. C. W. Schialer, Trenton.
Northern Pin, <i>Quercus ellipsoidalis</i>	10'5"	70'	49'	Dunes Park, Illinois. Kendall Laughlin, Chicago.
Post, <i>Quercus stellata</i>	13'9"	103'	80'	Charlotte County, Virginia. F. C. Pederson (Deceased).
Northern Red, <i>Quercus borealis</i>	24'9"	----	60'	Millbrook, New York. H. F. Hedgecock, Poughkeepsie.
Southern Red, <i>Quercus falcata</i>	24'1"	132'	122'	Cumberland, Maryland. F. W. Besley, Baltimore.
Swamp Red, <i>Quercus falcata pagodae-folia</i>	11'	65'	104'	Pennsylvania. H. H. Arnold, State College.
Scarlet, <i>Quercus coccinea</i>	13'11"	80'	97'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
Sargent Scarlet, <i>Quercus coccinea tuberculata</i>	7'9"	60'	75'	Forest Hill, Maryland. F. W. Besley, Baltimore.
Scrub, or Bear, <i>Quercus ilicifolia</i>	2'1"	26'	25'	Near Gatlinburg, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Shingle, <i>Quercus imbricaria</i>	9'7"	72'	61'	Pennsylvania State College, State College, Pennsylvania. H. H. Arnold, State College.
Schneck, <i>Quercus shumardii schneckii</i>	9'8"	68'	68'	Near Burnt Mills, Maryland. F. W. Besley, Baltimore.
Shumard, <i>Quercus shumardii</i>	14'	82'	99'	Parkwood Park, Kansas City, Kansas. Kendall Laughlin, Chicago, Illinois.
Tan-, <i>Lithocarpus densiflorus</i>	24'1"	84'	80'	Glenwood, Arkansas. Kendall Laughlin, Chicago, Illinois.
Turkey, <i>Quercus laevis</i>	7'9"	55'	54'	Near Cazadero, Sonoma County, California. Arnold F. Wallen, Santa Rosa.
Water, <i>Quercus nigra</i>	18'10"	----	----	Maxwell's Point, Harford County, Maryland. F. W. Besley, Baltimore.
White, <i>Quercus alba</i>	27'8"	165'	95'	Near Savannah River, Allendale County, South Carolina. Cleary M. Haithcock, Badin.
California White, or Valley, <i>Quercus lobata</i>	28'3"	153'	96'	Wye Mills, Maryland. F. W. Besley, Baltimore.
Oregon White, <i>Quercus garryana</i>	25'6"	----	120'	Bidwell Park, Chico, California. Lloyd G. Ingles, Chico.
Swamp White, <i>Quercus bicolor</i>	16'11"	112'	90'	Mendocino National Forest, California. H. G. Abbott, Orono, Maine.
Willow, <i>Quercus phellos</i>	20'	106'	118'	Near Hanover, Pennsylvania. C. N. Myers, Hanover.
OSAGEORANGE <i>Maclura pomifera</i>	18'10"	82'	66'	Queenstown Eastern Shore, Maryland. S. Glidden Baldwin, Danville, Illinois and F. W. Besley, Baltimore, Maryland.
PAWPAW Common, <i>Asimina triloba</i>	4'9"	32'	25'	Near Carmichael, Maryland. F. W. Besley, Baltimore.
PECAN <i>Carya illinoensis</i>	21'4"	145'	135'	Lancaster, Pennsylvania. John D. Kendig, Manheim.
PERSIMMON Common, <i>Diospyros virginiana</i>	8'1"	49'	59'	Assumption Parish, Louisiana. Sam Mims, Baton Rouge.
PINE Bristlecone, <i>Pinus aristata</i>	21'	----	----	Auburn, Logan County, Kentucky. Louis Liedman, Russellville.
Coulter, <i>Pinus coulteri</i>	17'	40'	144'	Cedar Breaks National Monument, Utah. Russell K. Grater, Springdale.
Jack, <i>Pinus banksiana</i>	3'6"	21'	28'	Angeles National Forest, California. Will H. Thrall, Alhambra.
Knobcone, <i>Pinus attenuata</i>	9'1"	----	----	Dunes State Park, Indiana. Kendall Laughlin, Chicago, Illinois.
				Rogue River National Forest, Oregon. Oliver V. Matthews, Salem.

(To be continued in next issue)

A Closer Look at Agriculture's Reorganization

(From page 19)

less contribution from our farm woodlands in meeting the nation's timber needs.

It is expected that SCS, in cooperation with state farm foresters, will continue to work directly with farmers in integrating forestry with the overall conservation program on the land. That, the FS estimates, will involve at least 80 percent of forestry advice and guidance required on private farm lands. The other 20 percent, which may require specialized advice, including timber cutting and management, is to be continued by FS in cooperation with state forestry officials.

"We will not disturb the present relationship between SCS and farmers whose woodlands are incidental to their farming operations," FS officials said. "Rather, we will try to foster and encourage that relationship. We will count on SCS and PMA committees doing most of the routine farm forestry work."

Forest Service officials continue, in discussing the Memorandum, to insist that it will not disturb present SCS work with farmers on forestry and that it will encourage greater cooperation between state and federal agencies. They point to the Cooperative Forest Management Act of 1950, to become effective on July 1. This Act, sponsored by the Association of State Foresters, clarifies procedures of increased federal-state cooperation and provides for the

elimination of duplicating employees and activities. FS officials say they want to eliminate the overlapping and duplication of federal and state forestry officers and field personnel. The authority and responsibility will be delegated to state foresters wherever they can and will take it, FS officials insist.

That portion of the Memorandum which has had SCS most worried is Sec. E. (1) which directs that "to the extent possible under present law or future amendments thereof, the forestry activities of the Soil Conservation Service are hereby placed under the direction and control of the Forest Service." To SCS that is an implication that legislative authority may be sought to completely strip SCS of all forestry work assigned to it under the Conservation and Domestic Allotment Act. FS officials, however, say they do not know of any intention to seek a change in the Act.

The same section specifies that the Forest Service, cooperating with State forestry agencies, shall be responsible for "producing and distributing forest tree planting stock, developing plans for farm forestry and shelterbelts, and assisting landowners in carrying them out." As a matter of fact, SCS already is pretty well out of the business of producing tree planting stock.

By an arrangement with the Association of State Foresters, the SCS

has purchased most of its tree planting stock in the past few years from state forestry nurseries. In states where sufficient supply has not been available, the SCS has had to supplement from its own nurseries. However, the SCS has only 15 nurseries that produce 20,000 or more trees a year and six producing less than 20,000 a year. The total, however, is not substantial. The great bulk of tree planting stock is being produced in state nurseries and SCS will be encouraged to obtain trees through those. Planting assistance and advice will continue to be by SCS and PMA committees.

Sec. E. (2) directs that FS and PMA jointly determine forestry practices to be included in the ACP program. FS officials say their recommendations will continue to include consideration of advice obtained from state forestry officials. No change in present practices is planned, they say.

That seems to support Department officials, from the Secretary down, when they insist the purpose of the Memorandum is to secure more, rather than less, active state and local participation in formulation of policies and the carrying out of the agricultural resources programs. Only as the program gets beyond its preliminary stages and more of the administrative details are worked out, can there be assurance that such an optimistic prophesy can be sustained.

The Light Truck of the Adirondacks

(From page 21)

there the planking has to be thicker in order that it might be hollow planed on the inside in the center and made convex on the outside to fit the curve of the ribs.

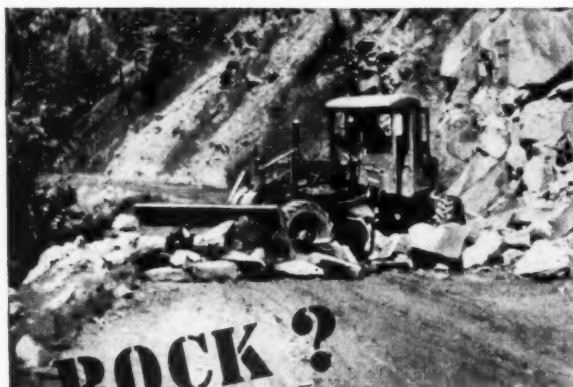
After each piece is fitted into its respective place, the beveled edges are cemented. An early practice was to make a paste of whitelead and varnish. The planks are fastened to the ribs with brass screws. The joints are nailed with very slim copper tacks, alternated inside and outside, holes for which are braded with a sharp awl. The tacks are driven against a clinching iron to bend them over properly. A good boat takes 3000 brass screws and 5000 copper tacks.

It takes a workman ten to 12 hours a day with good luck to get over a round of planking on a boat. There are seven rounds to a boat. After planking, the outside bowstems, the deck, 'wales, seat and yoke rails, oar irons, stem bands, shoes and finishing coats of paint or varnish are completed. Most boats are varnished rather than painted. In the old days it took a month of "long days" to build a boat. Now, from start to finish, that is without varnish, decks and 'wales, five and one half days are required. Ten or 12 boats can be made during a winter. Summer is given over to repair work by a builder.

Guide boats still can be found in many a boat livery and in private ownership. Several guide boats have been in use over half a century—one has been retired after 90 years of use—so well were they built and such was the care taken of them by the men whose livelihood they insured. Many a guide thought more of his boat than his gun. He pampered it more than he might a member of his family.

Most persons who have used one agree that no finer craft can be found than a good Adirondack guide boat—a craft that attests to the ingenuity of its people and is so characteristic of that section of the Empire State.

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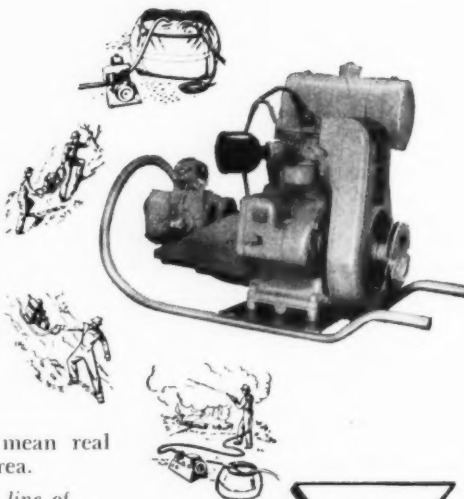
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Meet a Snake

(From page 12)

must keep critical watch over us. Death by gangrene isn't comfortable, either.

And how big we ask, are these potential murderers of the wild? The copperheads and coral snakes are full grown at three feet, the moccasins range from four to six feet, and I have seen the skin of a diamondback rattler that measured ten feet two inches. The bushmaster from Central America and the Caribbean islands has been known to reach 12 feet, the fer-de-lance, six feet, although a tree-living form of the latter may measure only two feet. The largest of the cobras, the king cobra, sometimes called the hamadrya, reaches 12 feet, while the Egyptian cobra or asp, of the kind that Cleopatra used to eject herself from life, varies from four to six feet. And every one of them is quite deadly, the potency of the poison having no relationship to size.

The constrictors, of course, are much larger, but few of us will ever meet a constrictor. We just don't go, normally, into their parts of the world; it's so much more comfortable where we are now.

Nevertheless, the size of these monsters is enough to take our breath. An anaconda from South America, and captive in the New York Zoo, measures 17 feet from nose to tail, and we have many reports of others 20 feet long. Why nature builds them so big is beyond me. I could be frightened just as successfully by one of ten feet long, but maybe a South America jaguar would take a ten footer in stride. Nature probably knows best.

In brief, the proper etiquette for meeting a snake, consists of being prepared. Being prepared in the United States means the observance of four rules. Here they are:

- 1) Keep a first aid kit for snake bite near. There is no time to go fetch one after a bite.
- 2) If we *must* go into snake country, we should wear high shoes, leg-gins or boots.
- 3) Unless we are searching for snakes, seeking to capture them, we should move through underbrush with plenty of noise, and slowly. Give them time to get out of our way.
- 4) Know what to do if bitten, and do it.

These four rules show us how to meet a snake. Observe them, and live.

Women and Wilderness

(From page 14)

a fawn, an' him a tiger an' her eyes says: 'Bite me, Tiger!'"

"Well, did Jim Trunk find Number Four?"

"Sure he did! Took him four hours—trackin' that li'l creature across them dry ledges, an' through the swamp."

The old car had drawn up in the cabin clearing, and now, for the first time, I was able to discern the driver. The car itself was Zeke's old clatter mill that had carried us over roads unprintable. But the driver was a girl—blond in the sweet May twilight, very much master of herself, and with only one hand on the old wooden wheel. The other hand, the left one, hung out over the side. In that hand she held a looped willow, on which four half-pound trout were suspended through the gills.

Before I knew it, Zeke was at the side of the car. He helped the girl out with some odd bundles, and made tender comment on the size and beauty of the trout. And to my amazement, this creature with bright, smudged face walked across the threshold of Zeke Brackitt's cabin with an air of imperious but loving proprietorship. She *did* give me a nod of casual acceptance, as for an old crony of whom she had heard many dull tales. But for the moment, probably justly, I was a kind of vegetable—harmless enough—but superfluously present, like an adjective. I was looking through the cabin window, the window of the cabin that I thought I knew, but no longer did.

I am an ear witness to the following dialogue:

"Zeke, honey. I got some swell curtain material—only 85 cents a yard. I caught the trout on the way back from town in Chancery Brook. They all took a Royal Coachman. Swell play on my fly rod. And my wonderful Elizabeth Arden stuff came too, darling. Thanks."

And I am eye witness to the following: Zeke's lean, broad back was to me, and I saw two slim brown hands slide up over his shoulders, and on one of these hands—the left one—I saw a band of gold, a wedding ring! So in the next instant I was pretty certain about the identity of Old Jim Trunk, who in the more

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realistic form of Zeke Brackitt, had tracked this charming creature o'er ledge and through swamp. But Zeke, or his new wife, had made the transition from myth to loving mayhem, for the slim hands tightened on Zeke's shoulders, and I heard her say, as she lifted her lips to his: "Bite me, Tiger!"

Cutthroat Trout

(From Page 23)

Each spring trout culturists of the U. S. Fish and Wildlife Service take millions of eggs from the spawning fish as they run up the many streams tributary to the 90,000 acre lake. These are fertilized, taken to the hatchery near the north end of the lake, and in about three weeks are in the "eyed" stage, or have become "advanced fry"—tiny trout, still feeding upon the yolk sac to which they are attached.

And man's knowledge, plus nature's kindness works additional magic right here. Normally hatched trout are raised to a larger size before releasing, an expensive process. But the spawning trout in the streams have all returned to the lake and the Yellowstone River below by late July or early August, so the eyed eggs and tiny fry are unmolested when placed back in the streams. Thus, they can grow and become fat, while their parents inhabit the larger waters. By another year these babies are almost of "catchable" size, and the second year they will be "real trout."

In both the lake and river below nature again has been kind. Hordes of fresh-water shrimp hatch from the aquatic grass and weed growth, to feed upon the microscopic plankton in the water, in turn to provide food upon which the trout become fat and sassy. And here the experienced angler will take the trip and, unless the fish are feeding upon a hatch of aerial insects, choose a wet fly or nymph resembling the shrimp—and catch fish.

This is essentially "wet fly" fishing. In the lake, wading from one of the sandy beaches, the cast is made well out, the fly permitted to sink, and retrieved in slow hesitating jerks. The fish never reach great size in either lake or river, averaging perhaps a bit over a pound, though two

(Turn to page 37)



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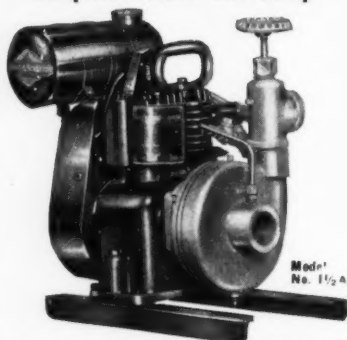
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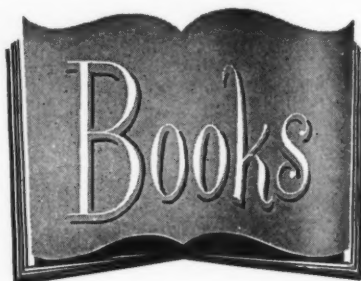
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Fishing Flies and Fly Tying, by William F. Blades. Published by Stackpole and Heck, Inc., Harrisburg, Pennsylvania. 234 pages, illus. Price \$7.50.

This colorful volume presents in detail the art of fly tying, covering almost every type of artificial fly. Pen drawings of black and white or full color photographs are used to illustrate each fly. The author is called the "fly tyers' tyer" in the Foreword by J. Clark Salyer II of the Fish and Wildlife Service of the Department of the Interior, who also states that he believes Blades' purpose in writing this book was "to give the beginner the information he needs about tools, materials and methods of

tying so as to eliminate many hours of wasted time trying to figure it out alone."

Bill Blades' success at fly tying seems to be at least partially based on the fact that he first makes a study of entomology and then proceeds to build an artificial duplicate of the fly which he proposes to tie. Because he himself is a perfectionist and yet has the ability to explain his methods in simplified detail, this book should prove invaluable to both beginning and advanced tyers, as well as serving as an added source of knowledge for all fishermen.

Maize in the Great Herbals, by John J. Finan. Published by Chronica Botanica Company, Waltham, Massachusetts. 191 pages, illus. Price \$3.

This hand-bound, limited edition is the only modern account of the early history of maize (corn), with special reference to its introduction into western Europe. In telling the history of the arrival of maize in Europe as reflected in the works of the Renaissance herbalists, the author has done extensive research and presents a comprehensive, well-illustrated account.

Our Landed Heritage, The Public Domain, by Roy M. Robbins. Published by Peter Smith, New York City. 450 pages, illus. Price \$5.50.

A synthesis on the history of public lands in the United States, this book is perhaps the first attempt to integrate American land history with the other forces that have shaped our history civilization. The author takes the point of view that our civilization is not all political, economic and legal; considerable social history is inextricably bound up with public land settlement. The volume is illustrated and the author makes copious use of footnotes.

A Manual of the Flowering Plants of California, by Willis Linn Jepson. Published by the University of California Press, Berkeley, California. 1238 pages, illus. Price \$5.

This is a new printing of the volume considered to be the only comprehensive description of the flora of California. It contains descriptions of 4,019 species of the fern-allies and flowering plants of the state and indicates their distribution. Numerous drawings render the reader a more complete understanding of the diversified vegetation of the state.

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Cutthroat Trout of the Yellowstone

(From page 34)

and occasional three-pounders are not unknown. They are always fat, beautifully colored, and put up a grand fight on light tackle.

Fishing Bridge, where the river leaves the lake in a broad, sweeping curve, is an angler's dream come true. It, of course, serves to carry heavy traffic on one of the Park's main highways, but its real fame is as a fishing spot. Without doubt more trout are taken from the bridge each summer than at any other place on earth.

The hordes of hungry cutthroats ply black and forth from lake and river the season through. Men, women and children throng the sidewalks of the bridge from dawn to darkness—and all catch trout. No "fancy playing" on a whippy rod here. The fish must come up and over the rail with a mighty swing. So when you drive across the bridge right of way must be given the angler, who just then is too busy to worry about a mere automobile.

Above the bridge where the lake

narrows, and below in the swifter current, wading anglers and others in boats will be diligently plying their art practically every hour of every day. Some use flies, others rely on spinners and wobbling lures. Angeworms, too, take their share of fish. Park regulations do not permit use of salmon eggs or minnows for bait.

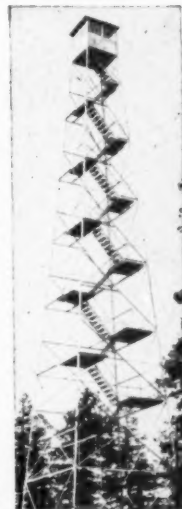
Farther down the mighty river there are miles and miles of beautiful fishing water, traversed by the highway, before the great falls are reached. There are wide, sweeping stretches of slow water just right for the dry fly, when an evening hatch of mayflies or other aerial insects appears. Deep, swirling pools and rock-studded runs offer possibilities for the spinner or deep-sunken bait.

If you should be in the Yellowstone country and want some real "granddaddy" cutthroats, they are to be had in Henry's Lake, down in the corner of Idaho, only 20 miles from the West Entrance of the Park. This remarkable lake does not appear to

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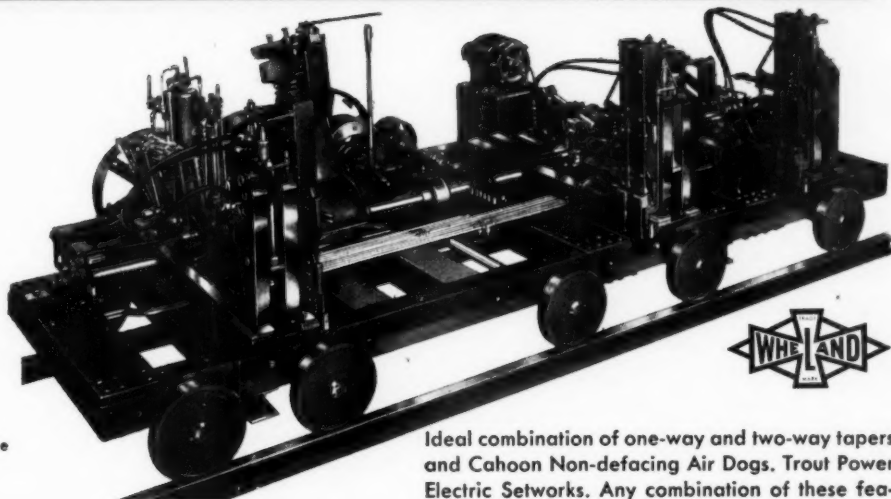
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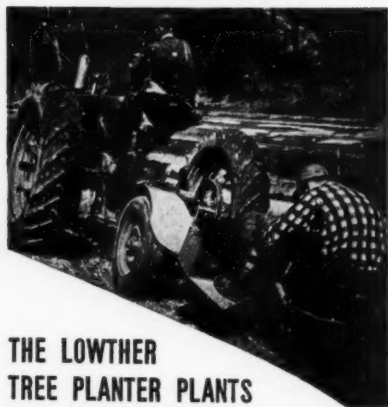
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be trout water, with its sagebrush shores and weed-grown shallows, yet it ranks as one of the most productive lakes of large trout anywhere in the West. There are great, broad rainbows, too, but they live far out in the lake, and do not seem to hybridize with the native cutthroat, who prefer the shallow lake borders.

Great fish of 20 pounds and more are taken from Henry's Lake almost every summer, but you will probably be satisfied with those of less size: fat, highly colored, gamey specimens averaging a mere three or four pounds in weight.

Here again, weed beds and hordes of shrimp, in addition to other nymph life, such as the embryo dragon fly, are responsible for the rapid growth of the trout. And, since all this lush food is to be had only in shallow water, the angler finds no necessity for going far out on the lake.

Perhaps the "hottest spot" is at the north end, where hotel, cabins and boats are available. Here a great, warm spring enters the lake, encouraging the lush, underwater weed growth. Between the weed beds are comparatively deep channels of clear water over which you anchor your boat, within a stone's throw from the little dock.

Here is the one spot that I know of, in a rather wide trout fishing experience, where it is easier to take fish on the fly than by any other method; where a short cast only is required; and where the tyro has as good a chance to land large trout as the expert.

And, for variety in this amazing lake, the great rainbows sometimes appear in schools, to raid the shrimp beds and anglers' offerings alike. Then there are doleful tales of broken tackle and lost monsters. Late one autumn, two years ago, the proprietor of this resort walked down to the dock and cast out a striped wobbling lure. A heavy strike at once. And much later he landed a beautiful specimen of the true rainbow weighing 23 and one-half pounds! And earlier that season a visitor, fishing for trout the first time, landed a huge cutthroat at that same spot weighing 20 pounds.

This interesting native is plentiful in other waters of this region, and often will be taken in great Hebgin Lake, with its more than 100 miles of shoreline, lying just out of West Yellowstone village. But here the rainbow is also plentiful, and many

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fish will show the marks of hybridization.

The cutthroat's natural range originally extended far to the west, covering much of Idaho, Nevada and eastern California, but in many of these waters the peerless rainbow has been introduced, and hybrid trout will often be found, with the rainbow characteristics predominant. The resulting fish is perhaps finer game from the angler's standpoint, but one cannot but regret the gradual loss of the colorful native.

Lake Tahoe, in California, and many other waters tributary to what was once the great Lahontan Basin in prehistoric times, contains *Salmo henshawi*, a fine variety of the native cutthroat. It was once common in the Truckee River, which drains down into great Pyramid Lake, from which giant trout were taken for many years. And the world's record cutthroat trout of 41 pounds came from that lake some 25 years ago.

And to prove the susceptibility of this trout to unusual conditions, far back in the California Sierras in little Silver Creek, there lives a gorgeous golden cutthroat trout. Almost as brilliant as the true *High Sierra golden*, this fish is nevertheless classified

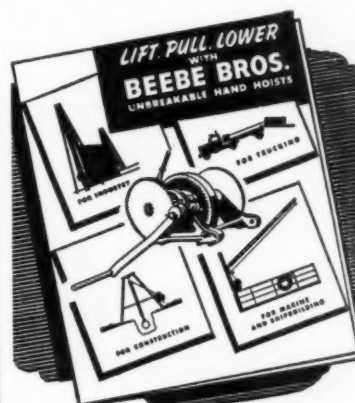
as a species of cutthroat by the scientists, and is called the *Pitue* trout.

Another form of the native cutthroat is the sea-run species, inhabiting coastal rivers from northern California up to Alaska. Properly named *Salmo clarkii* it much resembles the fish in the interior, but seldom reaches a size larger than four pounds. Living in salt water much of the year this fine game fish ascends to the streams to spawn in the spring, and provides excellent fly and spinner fishing before the general run of steelhead later in the season.

These coastal cutthroats will probably survive in their original form for long to come, at least in the many little known rivers up along the coast of British Columbia and into Alaska. But the future of the Rocky Mountain or *Lewis* cutthroat is not so bright in waters other than Yellowstone Park.

Perhaps then, the angler should join with other nature lovers who enjoy and appreciate the conservation measures embodied in the management of our great National Parks system, and give thanks for the far-seeing policy applied to the native cutthroat in Yellowstone.

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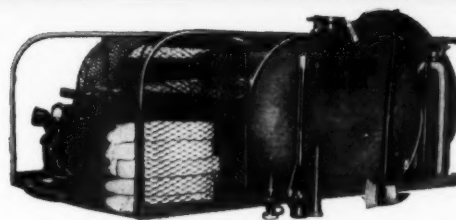
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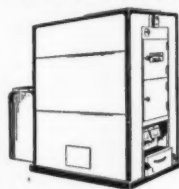
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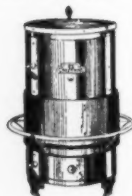
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On the Oak Wilt and Dutch Elm

(From page 11)

Noel Wyson and C. G. Sauers of the Cook County Forest Preserve in the vicinity of Chicago.

With the industry group having gathered \$20,000 and promising as much more where that came from, the advisory committee has now recommended the Universities of Wisconsin, Minnesota, Iowa, Illinois and Missouri be invited to participate in studies to investigate the methods of local control, method of spread over long distances, other possible forms of causal organisms and other host plants.

In the meantime Marvin E. Fowler, forest pathologist at Beltsville, will this summer continue to direct aerial surveys from Cape Girardeau, Missouri down through the Mississippi Valley delta lands and east as far as the Southern Appalachians to scout other areas where oak wilt may be suspected. Because of the pronounced leaf symptoms of the disease, aerial scouting proved effective last summer and helped uncover infestations in southern Missouri and Arkansas. Ground crews must verify these reports, of course, but time is saved in ground cruising what from the air is obviously healthy timber.

Although believed to have existed in the Iowa-Wisconsin-Minnesota area as early as 1925, oak wilt was not positively identified until 1942 when the fungus *Chalara quercina* was isolated at its casual agent. It remained a somewhat obscure tree disease until 1949 when discovered in the Ozarks of Missouri and in northwestern Indiana. These findings were given considerable publicity and caused great alarm when it was suggested the disease might sweep through the economically important oak forests of the Ozarks.

As reported in the April, 1950 issue of *American Forests*, there is little reason to believe the disease is airborne, and at present the only proven ways it may be transmitted are through root grafts and, to a lesser degree, through wounds which reach the cambium region of the tree. As yet no satisfactory explanation is forthcoming for long distance transmission.

At least 28 of the oak species appear to be susceptible to the disease, red and black oaks having been known to die within a few weeks after infection. In these groups foliage symptoms usually appear first in the upper part of the tree, then progress

rapidly over the entire crown. The leaves first become dull or pale green, curl upward and then become yellow before falling off. A brown streaking in the outer sapwood just beneath the bark is another symptom which can often be seen by peeling back the bark of infected twigs or branches.

Since there are other diseases—anthracnose for one—which gives oaks somewhat similar wilt symptoms, it is advisable to verify suspicions through laboratory tests. A half dozen twig or branch specimens six to eight inches long and about an inch in diameter, collected from wilting or recently dead oaks, should be sent at once to the nearest State Agricultural Experiment Station.

Symptoms of Dutch elm disease are either a sudden wilting of leaves which stay on the branches, or a sudden turn to yellow of all leaves on a branch or throughout a treetop after which the limbs become prematurely bare. The tender twig tips usually curl under, too. Anyone suspecting presence of a diseased elm should prepare specimens in the same manner directed for oak wilt and send them to one of several Dutch elm disease laboratories (such as the one at East Orange, New Jersey) or to state forestry or agriculture departments for forwarding.

Frequently, if Dutch elm disease is detected early enough, the tree may be saved by proper pruning of the infected branches. The removed wood should always be burned to prevent further spread. If a tree is too far gone, the only solution is to dispose of it as quickly as possible.

Many communities employ tree experts who will be glad to come to your rescue in such predicaments. Many New England communities are particularly vigilant, for a complete loss of the elms which line their streets would destroy a beauty synonymous with their history dating back to the colonial era.

Illustrative of the importance in which communities regard the disease, one resident of the District of Columbia recently inquired from The American Forestry Association if there was anything he should do about an elm in his yard which was losing its leaves. His query was called to the attention of John T. Batson, District superintendent of trees and parking, and a crew was dispatched to the scene in a matter of hours.

The outlook is not so rosy in and around the nation's capital, noted world-wide for its abundance and variety of trees. This year District officials for the first time requested and received an appropriation of \$24,430 to be used to provide a crew, spraying equipment and trucks to fight the spread of the fungus among the 31,532 elms.

The National Capital Parks, under the Department of the Interior, also has a crew under the direction of Plant Pathologist Horace V. Wester working full time on trees surrounding such beauty spots as Jefferson Memorial (see cover), Lincoln Memorial, the tidal basin, White House grounds and other such meccas sought out by every visitor to Washington. Healthy elms are sprayed by mist blower with a DDT 12 percent emulsion, and diseased trees are either pruned or removed. One 60-foot landmark on the White House grounds succumbed a year ago. First discovered in 1947, the record shows 18 infected trees in 1948, 35 more in 1949 and a jump to 102 new cases in 1950. There were six known new infestations as of the end of May, but it was feared the toll might well exceed the previous high by summer's end.

First identified in Holland in 1919, accounting for its popular name (the scientific identification of the fungus is *Ceratostomella ulmi* [Schw.] Buisman), the disease is believed to have found its way to this country through burl elm veneer logs imported from infected European areas. It was first identified in this country by Dr. Curtis May, then with the Ohio Agricultural Experiment Station at Wooster, in 1930 as existing in Cleveland and Cincinnati. Because it soon spread to many New England city streets and homesteads, the public was stirred to action much sooner than was the case with oak wilt.

Despite a rather intensive research program since the mid-'30s, pathologists have not yet been able to come forth with a cure-all for "Dutch elm," nor have they been able to halt further spread of infection.

The job is made more difficult, too, by the activities of insect carriers, two somewhat similar elm bark beetles which have been responsible for taking the fungus into new areas.

Adding still further to the confusion and consternation is a high incidence of phloem necrosis, a virus disease having highly similar symptoms and in some areas a far worse destroyer than Dutch elm disease. Only an expert can tell the two apart, but that's another story.

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Davy and the Reptile

(From page 17)

to skid logs and haul lumber.

A rainstorm made an early dark. It thundered and lightened. We rested after supper in the bunkshack, with murky lantern light. Uncle Ben came in and started yarning, as though to cheer the hands up. Then he cornered Bugs Dowd and began to gab about Davy Crockett's adventures in the Oregon country when it was wilderness. He acted as though he hadn't heard a word of objection from Bugs Dowd.

Nowadays Western Oregon is as free of snakes as Ireland is, mighty near (Uncle Ben said on, his drawl sounding high and dry through the beat of rain on the shakes, the wind surges and thunder peals).

As I remarked, there stood Davy Crockett alongside the seven-foot set of rattles he had unearthed and made to thunder, and here came Old Hickory, the boss sarpiant down the trail like a hoop from a big wheel. Davy took a turn toward him and let fly with Killdevil, all in a single move. In the middle of a revolution the monstraceous sarpiant broke his circle, spit pizen once, hit the rifle bullet, and melted it in one blending flash. Then he closed the circle of his hoop again and wheeled on for poor Davy.

He was geared and armed for the worst he could expect to meet in the big, black forest of Oregon firs. Big Butcher was in his belt, along with a brace of pistols. He had two pouches of bullets and three powder horns. But pizen was coming fast. On each turn the sarpiant would unbutton his jaws and take a sample spit at Davy. Then the air would turn blue and the needle leaves of the boughs above would shrivel and fall. The wind was behind Davy. It was his forlorn hope.

Davy Crockett was taking hold of that hope, you may be sure. His head worked faster than his hands, and that was mighty fast. Up and out came a powder horn. Davy unstoppered the little end and rammed it in his mouth. He took a deep breath. The wind churned and roared in his lungs. Then he aimed. He waited until the boss sarpiant wheeled close enough for a sight to be taken between the forks of his tongue as he uncoupled and licked it out—and then Davy Crockett blew full force.

The blast from Davy's tornadorious lungs was so powerful that it

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shot the powder forth in a lump that whirled and held together tight until it had sailed between the sarpint's fangs and jaws and into the critter's throat. In the same second fortune smiled. It smiled on Davy in the way of the sarpint's breathing out fire in that instant. And instantly the powder blew up. In the flash how Davy did run! He lit out so fast that the wind he raised ripped bark off the firs as he passed. And how he thundered! For he ran with the rattles of the big boss sarpint of the forests. With the roaring rattles slung over one shoulder and Killdevil on the other, youthsom Davy Crockett made tracks for camp.

And for miles around snakes came tracking after him. All they knew was that the thunder which rattled through the afternoon and the night-fall was from the rattles of the boss sarpint of the big timber. And the snakes came to the call, all breeds of them, saving only a few stray garters and kings.

Davy was tired out, and down-hearted too, by the time he made camp. It was nightfall. He didn't bother to bake up any sourdough bread but supped on cold jerky and took to the kivers. The rattles he swung over the bough of a fir tree.

Winds stormed in through the night from the Pacific Ocean. The roar of them in the big firs was fit to wake the dead. The winds carried the thunder of the boss sarpint's rattles far east up the mountains. Snakes from all over h'isted heads, forked out tongues and pricked up their ears, answering the call.

Davy Crockett slept through it all until the rising sun smote his eyes. He woke up slowly from a dream of homecoming to old Tennessee, a powerful celebration in which thousands made the welkin ring with storms of cheers, while the cannon volleyed the famous young explorer of the Oregon country with one salute after another. Davy woke up from all that and realized that the cheers were really wind in the trees and that the cannon volleys were the thunder of the boss sarpint's rattles.

Davy sat up to see snakes. All about his camp nothing but snake eyes looked at him from the bush and around the trunks of the trees. It was nothing less than an amazing spectacle to Davy. In the soft red light of sunup the heads of the snakes stood from their coils on the ground, waving and nodding like unto the lilies of the field. Many colors shone. Some in the shadows were as green as the grass and leaves. Others shone like

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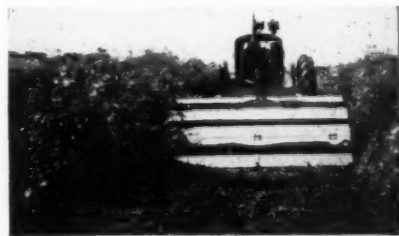
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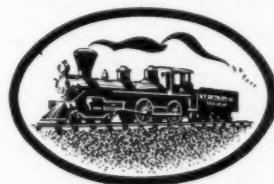
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the sunlight. The hissing of so many snakes sounded through the wind in the trees. But yet the hung-up rattles of the boss sarpint sounded loudest of all. And Davy Crockett had a head on his shoulders fit to recognize that it was the power of the rattles that had brought him such company as it was now his privilege to boast.

The big bother on Davy's mind at this time was the settlement of the Oregon country for Hail Columbia and Down with the Redcoats. The thing he thought of when wide awake was what a detriment to settlement so many snakes in the woods might be. No sooner did he think it than he made a vow on what he would try to do.

In short order Davy Crockett had his pack made and some scant swallers of jerky under his belt. Then he shouldered up, with the pack on one side and Killdevil on the other. Over the rifle's barrel the boss sarpint's rattles were slung.

It was wonderful to Davy how they would rattle like thunder and ring like bells as they swung there in tune to his stride when he turned north. Whatever the tune was to be called, it surely worked like a charm on the Oregon snakes. They came after Davy, one and all, and he led them through the wilderness, bringing in new converts at every blessed mile. Inside a week Davy was back at the old Columbia.

Meanwhile, Old Hickory, the boss sarpint, was at the tail of the procession, still hoping to get his rattles back. He was in sore shape but able to creep. His jaws were so scorched from the gunpowder blast that his bite was gone. All his pizen had gone up in smoke. His throat was sore all the way down to his gizzard. He could not swallow.

It was all Old Hickory could do to keep at the tail end of the march of the snakes—if such it may be called—but he did make it. He crawled to the rim of a bluff above the Columbia just in time to see Crockett go sailing round the bend in a dugout cedar with 40 Indians at the paddles—and all the snakes to speak of in Western Oregon filling the river in the war canoe's wake. The boss sarpint slithered for the bluff above the bend and dove in. He had no stomach for water. By this time Old Hickory was the most weary and woebegone reptile of history. But there ahead of him were all the other snakes from this side of Oregon. And ahead of them Davy Crockett stood at a mast in the mighty canoe, like George Washington crossing the

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- August 7-17—Sawtooth, Idaho—\$188
- August 13-25—Cascade Crest, Washington — \$188
- August 20-September 1—Olympic Peninsula, Washington—\$200
- August 29-September 10—Inyo-Kern, California \$205
- September 4-15—Pecos, New Mexico—\$205

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Delaware. From the top of the mast the magical rattles streamed and shook, thunder music ringing from them.

Sunset time the canoe was rowed over the bar by the Indian people and out into the ocean deeps. The snakes never faltered. They swam still after the spellbinding music of the rattles from the mast. And Old Hickory, the boss sarpint followed on.

Black was the night that fell. Through it the Indians rowed, making westing. In the wake of the canoe snake eyes sparkled and glittered—many at first, but fewer and fewer as the night wore on. By dawn only the boss sarpint was to be seen. And in the light this was only to flash a fang in wicked farewell at Davy Crockett before he gave a last convulsion of his great coils and then went under for keeps.

Uncle Ben Cotter stopped there to fill and light his pipe and to study Bugs Dowd through the murk and lantern shine. Then he said it was time for all to turn in. He remarked that Davy had anchored the magical rattles in a tree on the north bank of the Columbia and it had lured snakes down from as far as 54-40. Uncle Ben said it was too bad Davy Crockett or St. Patrick, one or the other, or somebody like them wasn't in the Seven Devils country. He passed a few words about the mean breeds of snakes in his own woods here, then moyesed out of the shack.

Bugs Dowd was up and down, in and out, the night long. I kept dreaming of snake eyes in the dark myself. Bugs couldn't quit camp quick enough in the morning.

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Length	Weight lbs.
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30 in. Saw.....	1 1/2
72 in. Section.....	2
72 in. Section.....	1 1/2

Total Weight. 8
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 George C. Waldo—Connecticut, Editor, *The Bridgeport Post and Telegram*.

NEWS IN REVIEW

Edward I. Kotok, assistant chief in charge of research, U. S. Forest Service, has retired after 40 years of service, according to Lyle F. Watts, Forest Service Chief. The veteran public service official has accepted a position with the Food and Agriculture Organization of the United Nations as head of a Chilean mission on forestry, agriculture and fisheries. His headquarters will be in Santiago, Chile.

Dr. Verne L. Harper, formerly director of the Northeastern Forest Experiment Station at Upper Darby, Pennsylvania, has been appointed Kotok's successor. Dr. Harper joined the Forest Service in 1927.

Internationally known for his work in forestry and his knowledge of forest conditions in the United States, Canada, Europe and parts of South America, Kotok came to Washington in 1941 to serve with the Forest Service as assistant chief in charge of state and private forestry. In 1944 he was named assistant chief in charge of research and since has directed the greatly expanded USFS research program.

Six hundred agricultural specialists from all parts of the United States are needed to represent this country abroad in technical cooperation programs, including the Point Four program, according to the U. S. Department of Agriculture.

Under present plans of expansion the Department's office of personnel is developing a national roster of professional agriculturists to be used by the Department and other federal and public international organizations in recruiting personnel for foreign assignments.

Paul W. Stathem, supervisor of Sequoia National Forest with headquarters at Porterville, California, has been transferred to the information and education division of the U. S. Forest Service regional headquarters at San Francisco. Jack J. McNutt, assistant supervisor of Angeles National Forest with headquarters at Los Angeles has taken over the Sequoia supervisorship. McNutt, associate executive secretary of the Society of American Foresters, Washington, D. C., from 1945 to 1947, became affiliated with the Forest Service in 1938 and had held the Angeles forest post since 1949.

ice in 1938 and had held the Angeles forest post since 1949.

The appointment of William Vogt as national director of the Planned Parenthood Federation of America, was announced recently by the federation. Mr. Vogt, author of the book *Road to Survival* and former chief of the Conservation Section of the Pan-American Union is widely known for his work in population studies and in the field of conservation of natural resources.

Mr. Vogt has crusaded in both hemispheres to alert nations to the growing problems of diminishing resources and expanding birth rates. His best-seller, *Road to Survival*, through its translation into nine languages and its condensation in the *Readers Digest* reached between 20 and 30 million readers and was instrumental in arousing public opinion to what previously had been a highly technical problem concerning few but scientists.

Dr. Edwin A. Ziegler, Dr. Warren D. Brush and Professor H. S. Newins, director, are retiring this month from the staff of the school of forestry, University of Florida, at Gainesville. Dr. Brush is widely known as co-author of AFA's *Knowing Your Trees* book. Dr. Clemens M. Kaufman is succeeding Newins as director of the school.

The homespun forest fire prevention messages of Jelly Elliott and his "Three Knotheads" have won first honors in the agricultural division at the 15th American Exhibition of Educational Radio Programs sponsored by the Institute for Education by Radio-Television at Ohio State University. The award was made to the U. S. Forest Service and the Association of State Foresters for sponsoring two 13-week programs, featuring Elliott and his hillbilly band.

Howard Mendenhall, for the past five years forester for the Brandywine Valley Association at West Chester, Pennsylvania, has joined the staff of The Society for the Protection of New Hampshire Forests. His principal duties with the state society will be to encourage reforestation of idle lands and better management of existing woodlands.

Timber Study Teams Here

The first 37 of some 80 executives and technicians from the wood-using industries of 11 free nations in Western Europe arrived in the U. S. early last month for an AFA-arranged study under ECA's Point Four program of timber processing methods developed here. The second group is scheduled to arrive July 16. Each group will stay about six weeks.

The initial group was subdivided into four teams, representing mass production furniture manufacture; medium and small scale furniture manufacture; uses of timber by the building industry, and the marketing of timber to be used by the building industry.

One or more of the four teams will visit plants and laboratories in New York, Connecticut, Illinois, Wisconsin, Michigan, Kentucky, Indiana, North Carolina, Massachusetts, New Jersey, Pennsylvania, Mississippi, Louisiana, Arkansas, Tennessee, Ohio, Minnesota, Iowa and the District of Columbia.

Dr Schenck Tours West

Dr. Carl A. Schenck, back in the U. S. for the first time since before World War II, left the East Coast late last month to attend the dedication July 4 of a grove of Redwood trees in his name and honor near Orrick, California. The distinguished German visitor, founder of the first school of forestry in the U. S.—near Asheville, North Carolina, in 1898—arrived in this country on May 15 and since has been feted by his many friends and admirers up and down the Eastern seaboard. He spent two days as a guest at AFA headquarters on May 28 and 29 and was accompanied on his westward junket by S. L. Frost, AFA executive director.

During his Washington visit, Dr. Schenck also accepted an invitation to the nation's capitol building where he was welcomed by Senator John J. Williams, Republican of Delaware, and Representative-at-large J. Caleb Boggs, Republican of Delaware. The doctor also was interviewed by the local press.

Dedication of the California memorial grove will highlight the 83-year-old forestry pioneer's visit to his adopted country. He will return from the West Coast via the Pacific Northwest and Montana. On his return to the East there will be another tree planting in his honor in the Hall of Fame at the Dawes Arboretum, Columbus, Ohio.

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Editorial

AGRICULTURE'S MEMORANDUM 1278

As Fred O. Bailey tells us in *A Closer Look at Agriculture's Reorganization* (page 18), Secretary of Agriculture Charles F. Brannan's Memorandum 1278 of last February stirred up considerable disagreement in a number of quarters affected by the new delegation of authority and responsibilities. There has even been doubt as to the intent in several sections of the order.

Bailey, a middle-of-the-road agricultural researcher, bends over backward in an attempt to present an impartial appraisal of the order, and certainly neutral bystanders should now be able to clarify their own thinking on exactly what the Memorandum does and does not say.

Those partisans who feel more strongly on the subject quite possibly may contend that Bailey's report is not as critical as it should be on several controversial issues—eliminating specific mention of the state forester as a member of the state conservation policy panel, and placing forestry activities of the Soil Conservation Service under direction and control of the Forest Service, to name two. Without doubt we will, and probably should, hear more from these dissenting groups.

Critics of the Memorandum, those who view with considerable distrust and skepticism the interpretations either obvious or implied, will note with interest that Bailey has prevailed upon U. S. Forest Service officials in particular to give their interpretations on the more controversial phases. They have even been quoted as to their intended position in carrying out these provisions. Should they later decide to take advantage of the many loopholes the Memorandum affords, they would certainly have their own quoted phrases flung back in their teeth with such force their new position would be untenable.

Most amazing, even disturbing, question in the entire issue is how the Secretary's office could have permitted such an evidently loosely worded Memorandum to be written, especially when it involves so many deviations from patterns of conservation policy long in force. The objective—to end jurisdictional dispute over who has what authority and responsibility for conservation of the nation's soil, water and forestry resources—is admirable. But couldn't it be accomplished without so many admitted omissions, misleading and unfortunate choice of words?

Nor is it quite clear why such confusing new avenues of approaching the subject were deemed necessary when the problem might have been worked out through the several thousand well estab-

lished Soil Conservation Districts already in operation with the blessing of proper enabling acts and farm citizens' county level boards. The promotion of farm forestry can profit immeasurably from the vast influence commanded by such a great agricultural organization, so it is hoped the damage done by unfortunate phraseology of the Memorandum is being repaired by deed and action extending from top to county levels.

ATTACK ON POLLUTION

In the daily jumble surrounding world shaking deliberations concerning the MacArthur issue, price controls and crime investigations, it was encouraging recently to note a blast on stream pollution from Senator James H. Duff, former Pennsylvania governor now occupying a Republican chair on Capitol Hill.

Not that such a pronouncement is out of keeping with the gentleman from Pennsylvania's record. His efforts to clean up his state's Schuylkill River and as a leader in promoting the conservation of natural resources provided a highlight of his governorship. So widely is his thinking along these lines respected that he was invited to give a major speech on pollution at The American Forestry Association's 1949 annual meeting in Wheeling, West Virginia.

Speaking at a five-state conference of the Interstate Commission on the Potomac River Basin June 7, Senator Duff said, "At a time when under Point Four we are sending funds to all parts of the globe, we had better reactivate our thinking about points nearer home. There is no reason that in the richest country in the world one of its most fabulous resources should be so corrupted."

Getting down to specific cases, he asserted that where the Ohio River passes Wheeling, West Virginia it contains not water, but "thinly diluted sewage." He also cited the decline in the oyster harvest of the Potomac-Chesapeake area from 15 million bushels a year to one-fifth that amount, declaring this condition was due largely to pollution.

In Senator Duff, conservationists have an able spokesman who should be encouraged to speak out in legislative circles where it will do the most good. Through men in his status can come much more quickly the realization of an end to neglect and waste of water, land, soil and forest resources. It is unfortunate so many legislators become so engrossed with worldly problems that they fail to be properly impressed with the gravity of problems confronting us close to home.

SELECTED BOOKS ON FORESTRY AND RELATED FIELDS OF CONSERVATION

TREES

A First Book of Tree Identification—Rogers	\$ 2.50
A Natural History of Trees of Eastern & Central North America—Peattie	5.00
Handbook of the Trees of the Northern States and Canada—Hough	5.50
Maintenance of Shade and Ornamental Trees—Pirone	6.50
The Arboreta and Botanical Gardens of North America—Wyman	1.50
The Home Book of Trees and Shrubs—Levison	10.00
The Trees of Pennsylvania—Grimm	5.00
Tree Trails and Hobbies—Cater	3.50
Trees—Yearbook of Agriculture—1949—U.S.D.A.	2.00

GENERAL FORESTRY

An Introduction to American Forestry—Allen	\$ 4.00
Bernard Eduard Fernow—A Story of North American Forestry—Rodgers, III	7.50
Fifty Years of Forestry in the U.S.A.—Winters	4.00
Forests and Men—Greeley	3.00
Indian Forest and Range—Kinney	4.50

FOREST MANAGEMENT

Aerial Photographs in Forestry—Spurr	\$ 6.00
Applied Silviculture in the U. S.—Westveld	6.00
Forest Management—Chapman	6.00
The Management of Farm Woodlands—Guise	4.00

MENSURATION AND VALUATION

Forest Mensuration—Bruce & Schumacher	\$ 5.00
Forest Valuation—Chapman & Meyer	6.00

WOOD—ITS MANUFACTURE AND USE

A Concise Encyclopedia of World Timbers—Titmuss	\$ 4.75
A Manual of the Timbers of the World—Howard	11.00
Farm Wood Crops—Preston	3.75
Forest Products—Brown	5.00
Harvesting Timber Crops—Wackerman	5.50
Logging—Brown	5.00
Lumber—Brown	4.25
Textbook of Wood Technology—Brown, Panchin & Forsaith	6.00
The Coming Age of Wood—Glesinger	3.50
The Mechanical Properties of Wood—Wangaard	6.00

PLANTING OF TREES AND FORESTS

Plant Buyers Guide—Steffek	\$ 7.50
Principles of Nursery Management—Duruz	3.50
Propagation of Trees, Shrubs and Conifers—Sheat	7.50
Woody-Plant Seed Manual—Forest Service, U.S.D.A.	2.75

FOREST PESTS AND FOREST FIRES

Fire—Stewart	\$ 3.00
Forest Pathology—Boyce	6.00
Insect Enemies of Eastern Forests—Craighead	2.50
Our Enemy The Termite—Snyder	3.50

NATIONAL PARKS

Exploring Our National Parks and Monuments—Butcher	\$ 4.00
My Camera in the National Parks—Adams	10.00
My Camera in Yosemite Valley—Adams	10.00
Steve Mather of the National Parks—Shankland	4.00

CAMPING AND RECREATION

Field Book of Nature Activities—Hillecourt	\$ 3.95
How to Live in the Woods—Halsted	2.75

THE BOOKSHELF

Our Eastern Playgrounds—A guide to the National and State Parks and Forests of our Eastern Seaboard—Merrill	\$ 3.75
The Book of Nature Hobbies—Pettit	3.50

BIRDS, WILDLIFE, FISHING AND HUNTING

A Field Guide to the Birds—Peterson	\$ 3.50
An Introduction to Birds—Kieran	2.50
Audubon's Birds of America—Griseom	2.95
Birds of Prey of Northeastern North America—Hausman	3.75
Fishing Flies and Fly Tying—Blades	7.50
Fresh Water Fishing—Carhart	5.00
Game Management—Leopold	7.50
Mammals of North America—Cahalane	7.50
Northwest Angling—Bradner	5.00
Our Desert Neighbors—Jaeger	5.00
The Fisherman's Encyclopedia—Gabrielson & Lamonte	12.50
The Land and Wildlife—Graham	4.00
The Saga of the Waterfowl—Bovey	5.00

FLOWERS, GARDENING AND LANDSCAPING

American Wild Flowers—Moldenke	\$ 6.95
American Wild Flowers—The Illustrated Encyclopedia of—Hausman	2.49
How to Landscape Your Grounds—Johnson	3.50
Shrubs and Vines for American Gardens—Wyman	7.50
Wild Flower Guide—Wherry	3.00

MISCELLANEOUS

American Resources—Whitaker & Ackerman	\$ 6.75
America's New Frontier—The Mountain West—Garnsey	3.50
Big Hugh—the Father of Soil Conservation—Brink	2.75
Big Jim Turner—Stevens	3.00
The Book of the States—Smothers & Cotterill	7.50
The Cascades—Mountains of the Pacific Northwest—Peattie	5.00
Conservation in the U. S.—Gustafson, et al	5.00
Conservation of Natural Resources—Smith	6.00
Educators Guide to Free Films—10th Annual Ed., 1950—Horkimer & Diffor	5.00
Elements of Soil Conservation—Bennett	3.20
Hunger Signs in Crops—A Symposium—Amer. Soc. Agronomy et al	4.50
Legends of Paul Bunyon—Felton	5.00
Of Men and Mountains—Douglas	4.00
Our Plundered Planet—Osborn	2.50
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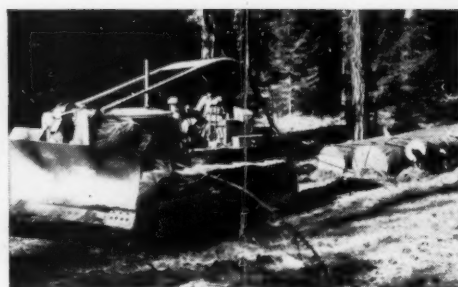
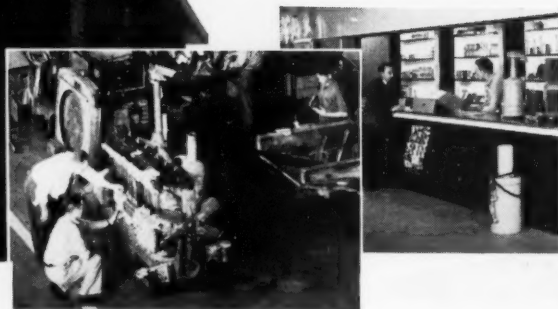
Knowing Your Trees—Collingwood & Brush	\$ 5.00
American Conservation In Picture and Story—Butler	2.50
Teaching Conservation—Beard	1.50
Managing Small Woodlands—Koroleff & Fitzwater	1.00
Trees Every Boy and Girl Should Know—A.F.A.	.50
Trees of the District of Columbia—Mattoon	.35

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